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Farm and Ranch REVIEW

OCTOBER, 1953

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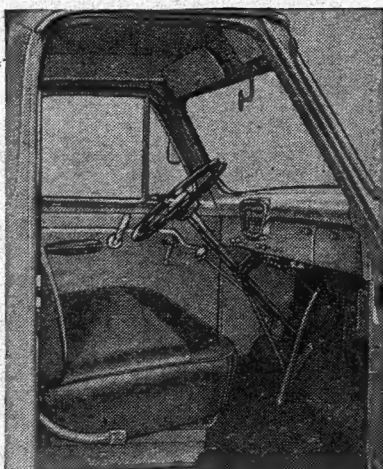
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Ready and Waiting



Readers of the Farm and Ranch, who know how hard it is to get one or two animals to pose for a picture will think that this picture must have been taken with the aid of mirrors. The explanation lies in the young man in the picture. He is Donle Brooks, who though still in his teens, is regarded already as one of Alberta's top trainers of hunting dogs. Note how all of these seven Labs. are alertly watching him, waiting for his next command. All of them are free and unleashed. The picture was taken by Trevor Brooks, Donle's brother, 209 - 60th Avenue S.W., Calgary.

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Graphic Arts Bldg., Calgary, Alberta

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Founded in 1905 by Charles W. Peterson

No. 10

James H. Gray, Editor

P. Peterson, Advertising Manager

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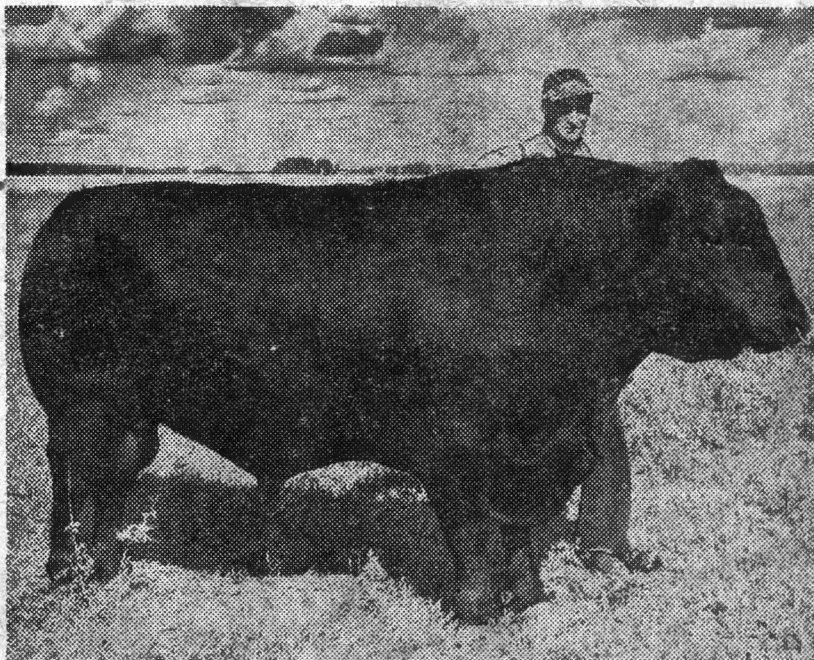
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How do they drill an oil well, Dad?



"You've seen me drill a hole in a piece of iron. Drilling down through rock is somewhat the same but the drill points have to be extremely hard and tough. The cutting parts of the drill are made of nickel alloy steel because it lasts longer and cuts quicker than most other materials."



"Do they drill very deep?"

"Yes, sometimes oil wells are drilled two miles deep. Pieces of pipe are joined to each other and the rock bit is screwed on the bottom end. To keep this great length of pipe from breaking it is sometimes made of nickel alloy steel which is strong and tough. It is also less subject to the corroding influence of salt, sulphur and chlorides often found in oil wells."



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The Farm and Ranch Editorial Page...

We don't scare so easily now!

ONE very real advantage that Prairie Farmers enjoy today is that they don't have to depend on city newspapers for their news. Thus most of you will not have noticed the flood of propaganda that has emanated from London and Liverpool trying to scare wheat growers to death.

Fortunately, the world has moved past the stage when this propaganda can be effective. We'd pay no more attention to it than we would to any other out-dated relic of a by-gone age except for this: Few Prairie farmers ever appreciated the skill with which the propaganda arm of the Liverpool futures market used to operate.

From Liverpool, by the quickest cable route, came a constant flow of crop information. If there was a good crop ripening anywhere in the world, Liverpool saw to it that all the other grain markets were kept informed of the fact. The purpose of all this was to keep the price of wheat from rising above the levels the British wanted to pay.

When the war came, and the Liverpool market closed, the propaganda mill shut down. When the futures market was re-opened recently, to obtain cheap wheat for Britain, it naturally re-opened. We got the feeling that it just started in where it left off a decade ago, with the story the Argentina would cut its wheat price and steal Canada's market.

Indeed, some of the old hands are back in business at the old stand. Twenty years ago a fellow named Sidney Gampell achieved a certain notoriety by authoring a pamphlet attacking the Wheat Pools. (It was distributed, naturally, by the Winnipeg Grain Trade.) Now a news agency financial writer, he's been putting out stories featuring the old Russian and Argentina bogies.

Happily for us, however, times have changed. There are no speculators rushing in to help beat the price of wheat down on the futures markets. We do not have to dump our wheat for 30 cents a bushel. Our wheat is in the hands of the Wheat Board which cannot be stampeded by Liverpool propaganda. So Liverpool, like a worn out ham-actor, plays out its great scene in an empty theatre.

In saying all this, we do not for a moment minimize the difficulties which we face. It may well be that prices for wheat will be lower before they go higher. It appears certain that it will take some time to dispose of our large supplies of wheat. Ultimately, our surplus will all be sold.

Meanwhile, it will be to the interest of every prairie wheat grower to make certain that nothing is done to impair the strength and usefulness of the Wheat Board. Surely we have learned the hard way that it is

much better to have a down-payment for our wheat that is too low rather than one that is too high. We overshot the mark once and it took us 15 years to recover from the damage done by a down-payment that proved to have been too high.

★

Take the hobbles off the banks

PROBABLY the most important single piece of legislation that will come before the next session of Parliament will be the revision of the Bank Act. That happens by statute every 10 years. Naturally, we don't know what changes the Government contemplates recommending to Parliament. All we know is that some drastic changes are long over-due.

As a generality we'd put it this way: Our chartered banks have reached such a stage of maturity that they should be weaned and turned out to forage for themselves in much bigger pastures. The present bank act rigidly restricts their function; and these restrictions in turn hamper the growth of this country.

In many respects, our banking laws are the product of fear — fear that banks will go broke by reason of improvident lending. They cannot lend money on mortgages, or on land, or on automobiles. So we have seen the growth in this country of commercial and personal finance companies which perform functions which should be undertaken by the chartered banks. Banks can lend money only on security, so there is no lending done on character. Character lending ought to be a most important part of a bank's activity.

But lending money on the character of a borrower carries certain risks and the whole emphasis in Canadian banking is on "security" and the avoidance of risks. Yet the inability of energetic, ambitious and honest young people to grow financially is one of the jammed brakes on the Canadian economy. The "big shots" can borrow all the money they need, but the "little shots" can't, so they can't become the "big shots" of tomorrow.

In a growing country like ours, with so much development to be done, everybody has to take risks. The farmers' life is all risk. He risks his capital when he puts in his crop, he stakes his future on the purchase of new machinery. There is no known method by which he can avoid taking risks. If the farmers behaved like our banks, and refused to look a risk squarely in the eye, this country would still be one vast, unpeopled buffalo pasture. Why, then, should risk taking not be part and parcel of our whole economy?

In the United States, they have largely solved the problem of securing the deposits of people who use the banks as cold storage vaults for their savings. Savings accounts are insured by the Federal Reserve System. If a bank goes broke, savings depositors are completely protected up to certain limits. Our system in Canada is far more complicated. We seek to insure the safety of savings deposits by restricting the use which banks can make of these deposits. So we bar the banks from lending money at good interest in a whole catalogue of new fields that have grown up during the last quarter century.

We hope that the new Bank Act will at long last at least loosen the hobbles on the banks if it doesn't remove them entirely. True, our banks have become so accustomed to these hobbles that it will take them time to accustom themselves to their new freedom. Indeed, they may not take too kindly to it because they have prospered greatly because of the hobbles. But let's for goodness sake stop worrying about the savings depositors. Their savings can be guaranteed in any number of different ways. Let's do some worrying, for a change, about how the banks can best fulfill their function of speeding the growth and development of our country.

★

An overdue salute to Dick Painter

THE announcement early last month that R. H. Painter, head of the Dominion Entomological Laboratory at Lethbridge, had been given a new job provides us with a chance to offer an appreciation of the work that Dick Painter has done for prairie agriculture.

When the department of agriculture opened its Lethbridge bug and fly lab. in 1947, it made the happiest possible choice in putting Dick Painter in charge. And happy it was, too, that he had his own ideas of what the function of that laboratory should be. A lesser man might have buried himself in it and concentrated on research.

Instead, Painter went out to sell bug and fly control to the primary producers. He fought his way through blizzards, waded through the mud and pounded away at the sales resistance of cattlemen. He tinkered with machinery and sprays, because none was available to do the job the way he wanted it done.

How many thousand miles he covered, we'll never know. But we know this — it was Dick Painter who single handed succeeded in rousing the farmers to the damage that warble flies, deer flies and other insects did to livestock. Anybody who listened to Dick Painter profited by his attention. He never lost sight of the fact that Government employees exist to serve the farmers on the land.

According to the news reports, he has been promoted so that he can carry the work he has done so well even farther afield. He becomes the livestock insect liaison officer for Western Canada to help co-ordinate the pest control efforts of all governments. He'll do that to the King's taste.

Though we have no knowledge that

(Continued on Page 6)

Farm and Ranch Editorials

They shadow box with gas and ignore the constitution

WE confess that the current uproar over the export of natural gas leaves us rather baffled. Not because we have any difficulty making up our minds on the overall principle that should govern the whole business. It springs rather from the Gilbert and Sullivan procedures that are being followed by everybody concerned.

It is the procedure that makes it confusing, as if, out of nowhere, they suddenly started using football huddles in hockey games. The Dominion Government has said that it will do what it has to do to facilitate the movement of Alberta natural gas to other provinces as soon as the Alberta Government issues an export permit. The province, in turn, has been holding lengthy hearings, via its Conservation Board, to decide whether it has enough gas to export and who shall export it.

Now all of this may make some sense, provided everybody concerned completely ignores the B.N.A. Act and the huge body of law that has been built upon our Constitution. But the moment the Constitution is considered, none of these procedures make any sense at all.

For example, the courts have held, times without number, that it is the inalienable right of every Canadian, to buy whatever he wants anywhere in the country and take it home. In other words, all the efforts that have been made to create barriers to the movement of goods between provinces have come to grief in the courts.

Just about every Canadian province

(Continued from Page 5)

this is so, the Farm and Ranch hopes that Painter's promotion is a straw in the wind as well as public recognition for the work he has done. It could well be that this marks a significant change in the direction of Science Service, that it has finally recognized that all its fancy research laboratories, and its fancier research gadgets, and all its degree-festooned scientists count for nothing unless the fruits of their labor are put to use by the farmers on the land.

For reasons known only to itself, Science Service has sought always to operate in its own self-created vacuum. It laid great stress on the importance of publishing technical papers on obscure subjects in even more obscure scientific journals. Our own efforts to interest the service in getting information out to the farmers never got to first base.

So, we repeat, we hope that a change of direction on the high policy level is in the offing. If it is, then the huge storehouse of valuable information may be opened for public use. Scientific research, all over this continent is already a full decade ahead of the producers. What is required is not more expensive research to further widen the gap, but concentrated effort on the part of all government agencies to catch the farmer up on the latest scientific information.

has tried its hand, at one time or another, in trying to control exports out of the province. In 1941, Prince Edward Island tried to operate a sheep and swine marketing board. B.C. tried it with fruits. Both acts were declared to be ultra vires provincial authority. Similarly, efforts of provinces to control imports have consistently met the same fate in the courts.

So it seems obvious to us that while the Alberta Government may be able to set up regulations under which gas can be produced, it cannot either directly or indirectly exert any control whatever over the movement of that gas in inter-provincial trade. If, for example, a gas user anywhere else in Canada wants Alberta gas, he has every right to buy it and take it home without let or hindrance from the Alberta Government.

As a matter of fact, the Alberta Government itself has said that in different words. Our farmers will recall that a few years ago it was requested to enact legislation, ancillary with that passed by the Dominion, to provide for marketing of coarse grains through the Wheat Board just as wheat is marketed. It passed the act but refused to enforce it on the grounds that it was beyond the power of Alberta to interfere in inter-provincial trade. Obviously, if it cannot control the marketing of coarse grains, it can't control the marketing of gas.

So in face of the clear definition of the province's constitutional limitations, why all the agitation, why the hearings and meetings and what not?

Our guess is that this is a long range programme, on the part of the Social Credit Government, to have another bogeyman in shape for the next election. It has been said that the Democrats in the States stayed in office for 20 years by running against the Hoover Depression. The Social Creditors have done about as well in Alberta running against the Canadian Constitution. They have done very well, indeed, by having an "ultra vires" bogeyman around to blame for their troubles. It worked so well when they were monetary reformers that they may hope it will work again in connection with natural gas.

Once natural gas starts to move out of Alberta, it will result in an increase in the price of gas for all the cities now served. The price the export lines pay for the gas will be bound to push domestic prices up.

The Government, which depends on city and town support, will then try to establish a two-price system. That could be done by putting a tax on exports which might be used to subsidize domestic users. But the moment it gets into that game it will get into the courts. It will be held that any such legislation is ultra vires the Alberta legislature. The domestic users will naturally be provoked. But it is strange, in Alberta, how electoral anger can always be diverted elsewhere if the Government can only trot out an "ultra vires" bogeyman onto the stage. Until the election is over, a holy war will be waged against the Constitution which prevents Alberta from achieving its destiny. Naturally, when the election is over, the bogeyman will be filed

and forgotten until it is needed again.

Ultimately, of course, this problem must come to roost on the doorstep of the Dominion Government. It is the Dominion which will have to act to safeguard the rights of Canadians, wherever they live, to buy what they want and take it home, even if what they want is gas from the wells in Alberta.

★

It kills calves. How about people?

WE hope that none of our readers, and particularly those who are eating margarine, will miss the article on page 7 of this issue. This article should dispose for all time of the notion that margarine is "just as good as butter". There is obviously a great difference between butter and margarine. Margarine, or more accurately, the vegetable oils from which margarine is made, kills calves. Butter doesn't.

We concede that this might still make margarine a healthy food for humans. The human stomach and the cow's stomach are not alike. Foods which are good for cattle would give humans the colic and vice-versa. But the important point is this: We do not know whether the stuff in margarine that is slow and deadly poison for calves is not also much slower but equally as deadly poison for humans. In fact maybe that's what's wrong with the human race. Until we do know that, we will eat margarine at our own risk.

We have in this country a pure food law. Manufacturers of food which contains certain preservatives which are injurious to health are required to disclose the presence of these things on their labels. Why then, should the makers of margarine not be compelled to tell the Canadian people that vegetable oils are injurious to calves and that margarine is not a fit food for young livestock. This may not have any affect on the sale of margarine. It will certainly clear the air of some of the extravagant claims that are being made for the butter substitute.

★

How-wrong-headed can you get?

YOU could call this a capsule history of Canada, or a thumb-nail summary of economics. It goes like this:

Last winter we saw a Vancouver union tie up the grain elevators for weeks on end at an ultimate cost to prairie farmers of hundreds of thousands of dollars.

More recently the unions employed by the grain fleets on the Great Lakes, held up the shippers — the farmers and not, as the news stories had it, the shipowners — for fancy raises in pay.

Then the milk drivers' union in Toronto went on strike, and milk for consumers was dumped in the streets.

Moral: The only thing which the unions and the farmers have in common are the farmers' assets.

Observation: In the face of all this we have leaders of grain growers' organizations going hat in hand to trade unions to seek support for a parity price scheme which is of no use whatever to Prairie grain producers.

Question: How silly can you get, really?

The calves all died on vegetable oil diets

(From the Guernsey Breeders' Journal)

THE following is a summary of experimental work at the Minnesota Agricultural Experimental Station during the past 15 years relating to the nutritive value of various vegetable fats as compared with milk for young dairy calves.

The initial experiment was undertaken for the purpose of finding out if some cheap vegetable oil or fat could satisfactorily replace the butterfat in whole milk for the production of choice veal. In the first trials, a high grade soybean oil was used. It was added at the rate of 3.5 pounds per 96.5 pounds of skim milk and the mixture homogenized to form a filled milk containing 3.5 per cent fat. This product, supplemented with vitamins A and D, was then fed in the usual quantities to healthy calves starting when they were about two weeks old. All of these calves died within a few weeks after being placed on such a diet.

These results raised a question in regard to the possible nutritive value of other vegetable fats for calves and indicated the need for further study. Since that time the following vegetable oils and animal fats have been tested in the same manner in feeding trials with groups of calves: Corn oil (maize and amazo), cottonseed oil (Wesson oil), coconut oil, peanut oil, lard, beef tallow and butterfat. Also a no-fat diet was fed to one group of calves.

In these trials only calves that were healthy and thrifty were used. They usually were fed whole milk (colostrum first day or two after birth) two weeks after which they were shifted gradually to the desired fat filled milk. The rations in all cases were supplemented with adequate amounts of vitamins A and D and essential minerals. Hay and concentrates usually were not fed until calves were several weeks old and in some cases not at all. Invariably under this plan of feeding all calves fed the vegetable fat filled milk ration died within a comparatively few weeks after being placed on such diets.

Calves fed vegetable fat filled milk generally made fair gains in weight for several weeks to a month or more after being started on the diet. This was followed by a period of no gain and this in turn by a rapid loss in weight terminating in death. Affected animals during the later stages appeared thin and emaciated with rough and unkempt hair and some of them also showed a characteristic acrodynia, or loss of hair, the area about the face, ears and neck being first affected. Some calves in the advanced stage of the syndrome have been restored to normal simply by shifting

them to a normal whole milk diet.

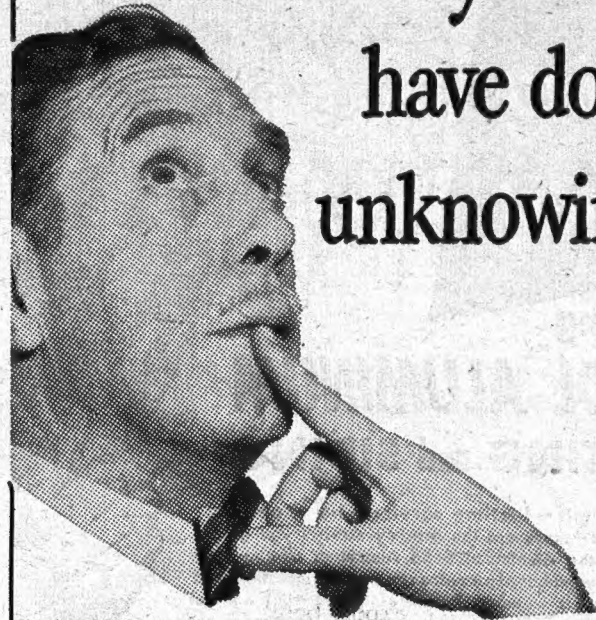
It is significant that the groups of calves fed the lard and tallow filled milk had a better appearance and made more satisfactory gains in weight for a longer period of time than those fed the vegetable fat filled milk. Eventually, however, some of them showed some of the same symptoms exhibited by the latter. Calves fed the "skim milk" or no-fat ration on the other hand remained normal in appearance throughout the 90 days or more they were on experiment. They did not, however, have the characteristic sleek well-fed appearance of calves fed whole milk.

During the progress of the experiment, the effect of adding various supplements to the vegetable fat filled milk diet has been studied. Among the more important supplements so tested besides those already mentioned are the following: Vitamin B12, streptomycin, paper pulp, alfalfa hay, grain, alfalfa hay and grain, lecithin, B-complex vitamins (high level), liver extract, aureomycin tocopherol, sodium acetate and choline. It is noteworthy that none of these supplements either alone or in different combinations have been wholly effective in preventing the onset of the syndrome and the ultimate death of calves fed vegetable fat filled milk.

Feeding of B-complex vitamins at a high level appeared to lengthen their life span in some cases, and this was also true when mixed tocopherols were provided. Also it was found that so long as calves persisted in consuming large amounts of hay they remained normal, however this condition seldom persisted beyond the age of 90 days. The beneficial effects from replacing various proportions of the vegetable oil with butterfat has also been demonstrated. In general, the physical well being of the calf under such conditions has varied directly according to the proportion of butterfat present in its ration.

Results in brief have shown that in many cases hemoglobin levels in calves on a vegetable oil diet (corn oil) are in the anemic range. There also appears to be a tendency for the white blood cells to progressively decrease in such calves. Also gross post mortem examination of such animals has revealed white patchy areas in skeletal muscles, fatty livers and enlarged flabby hearts, and histological studies have disclosed lesions in striated muscles as well as cardiac lesions. In addition to this, electrocardiograms on affected calves have revealed what appears to be heart block and arrhythmia in several cases.

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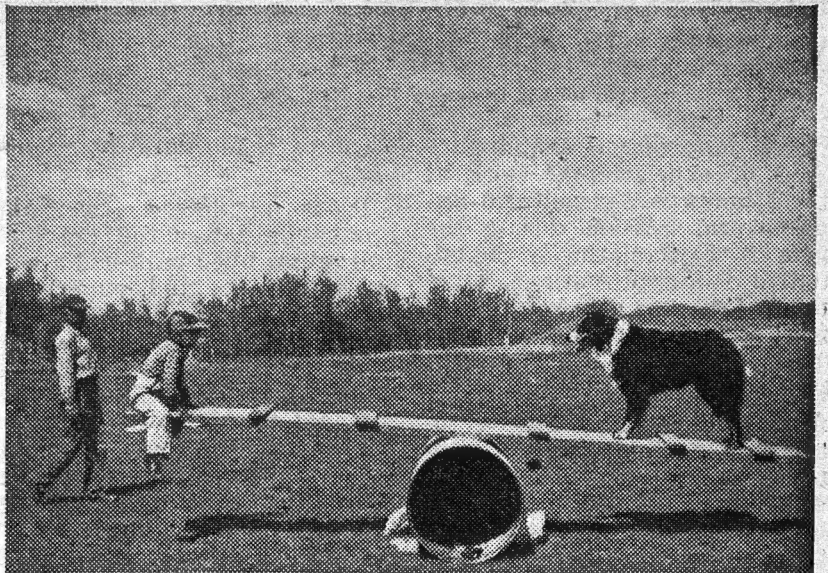
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Up We Go!



This picture proves that you don't have to have two to teeter-totter, if you've got a good dog to play with. Conrad Nelson, McLaughlin, Alta., won \$5 for this picture of his brother, Brian, and Laddie on the teeter-totter and Norman waiting his turn.

Heads are important— but so is the body!

By GRANT MACEWAN

NOT long ago I sat in the bleachers at a sale-ring and saw two pure-bred heifers of similar size and similar body conformation, pass under the auctioneer's hammer. The only conspicuous difference between the two animals was in heads and the heifer with the good head outsold her mate by an even \$600.

Why all the talk about heads in farm livestock? In a dairy cow, the head is the anatomical part which is farthest removed from the udder and in the meat trade the head is the part from which there is the least direct return in edible products. The butcher has no more interest in the steer's head than in its visceral organs.

Yet the breeder of pure-bred stock is inspired by a "good head"; the Canadian auctioneer likes to point to a "million-dollar head" on a young bull, and the Scot, no novice when it comes to animal values, unleashes his enthusiasm to the extent of muttering, "It's a bonnie heed".

There are two reasons for emphasis upon heads in breeding animals; one stems from an alleged relationship with utility and the other is sentiment, pure sentiment, for breed character. One is intensely practical and the other is not practical. Still, both can be important because, even sentiment may be an essential to progress in breed building and improvement.

As in most things, we have probably been partly right and partly wrong in assessment of heads in farm breeds. We may have been wrong, at times, in the kind of heads we demanded but we were right, dead right, in assuming that the head is to a

large extent an indication or a sample of what is behind it.

In designing animal form, nature is strikingly consistent. With a long body, we can expect to find long legs, long neck and long face. Nothing else would make sense. A short neck along with long legs would be almost as inconsistent as short legs on one side of a herd bull and long legs on the other. Nothing in animal is more fascinating than a study of biological and genetic relationships.

The dairyman has noted that a long and level rump is related to a long attachment and levelness of udder. And students of beef production have observed that external smoothness in fat cattle is some indication of the much-sought marbling or intermuscular deposition of fat which adds so much to fine eating qualities in the meat.

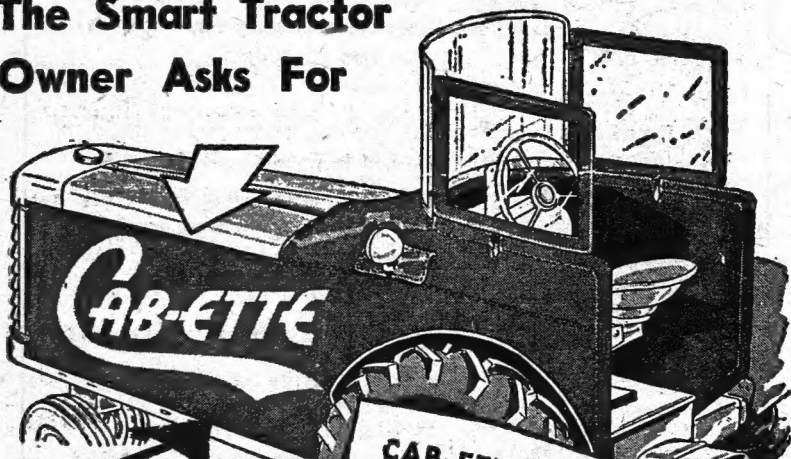
In the same way, the head and its characteristics will tell the experienced eye something of the qualities that lie farther back. And inasmuch as the head does not change materially with increase or decrease in state of fatness, it may offer a better indication of some native type characteristics than a body swollen with fat.

Anyone who has associated with experienced feed-lot operators, whether in Ontario, in the State of Iowa or in Scotland, must have been impressed by the emphasis placed on "feeder heads". Those cattlemen who care little for breed character and nothing for stylish pedigrees are insistent that a broad muzzle and a forehead are marks of good and vigorous feeding cattle, the kind that will be big eaters and big gainers.

It does not follow that their ideas in heads are exactly the same as those expressed by many breeders of pure-bred beef cattle;

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as a matter of fact, the specialists in fattening commercial cattle have deliberately sought heads with somewhat less refinement than the breeders of recent years have been selecting for, believing that in departing even slightly from refinement in heads, they were getting more growthiness and more ruggedness in their feeder stock.

Super-refinement of heads belongs with super-refinement in bodies. There is no better example than that found in the Jersey breed; its extremely fine and distinctive heads would fit no other type than that of this fine and delicately constructed Channel Islands breed. The relatively short, finely chiselled heads are the logical constituents for a small, fine boned, super-quality type, with fairly short legs. The breeders of Holstein-Friesian dairy cattle who have consistently stressed size, stretch and scale in their animals, have been careful to select for reasonable width of muzzle and forehead but not for shortness of face between the levels of eyes and muzzle.

The degree to which a breeder's fad about heads can alter many breed characteristics was never better demonstrated than when short heads

became the fashion in Canadian Yorkshire pigs. It was partly a reaction against the very long-legged and long-faced pigs of the '20's, accused of being "poor doers". The importance of the long body to the bacon pig was never questioned but it was completely overlooked that in shortening the Yorkshire's face, some undesirable changes might accompany.

Anyway, as many stockmen will recall, there was a period in the late '30's and early '40's when Yorkshire boars in the West, sold almost entirely on shape and shortness of heads. Unless a boar had a short face, he was difficult to sell. Those short heads did seem attractive but it was to be discovered that shorter legs, shorter bacon sides, more fat and poorer bacon carcasses, were more or less by-products of the new basis of selection.

Breeders found that in selecting for heads that were very much like those of the Middle White breed, they were left with pigs whose bodies resembled those of Middle White. Heads did mean a lot; there was no question about that; neither was there any question about nature's determination to be consistent.

If commercial cattlemen, feed-lot operators and other practical producers had a difference with the pure-bred breeders on the question of heads, it rested in the belief that many of the highly refined and picturesque heads seen at the top in many show-rings in recent years, could not fit anything but an animal that was likewise fine

and coupled-up to the point of being small.

Extreme shortness of head and corresponding shortness of legs would be very acceptable if they didn't tend to go hand in hand with overly refined and small animals. The shortest head of them all is the one seen on the unfortunate misfit known as a dwarf, the animal whose most conspicuous characteristic is lack of size; often that dwarf has sported a head that was so short and broad that by itself, it seemed impressive. One doesn't see many of the extremely short heads and extremely short legs on big and robust animals.

But about width of muzzle and width of forehead, there is no argument; broad heads belong to broad backs and that general thickness which is the prime characteristic in beef type.

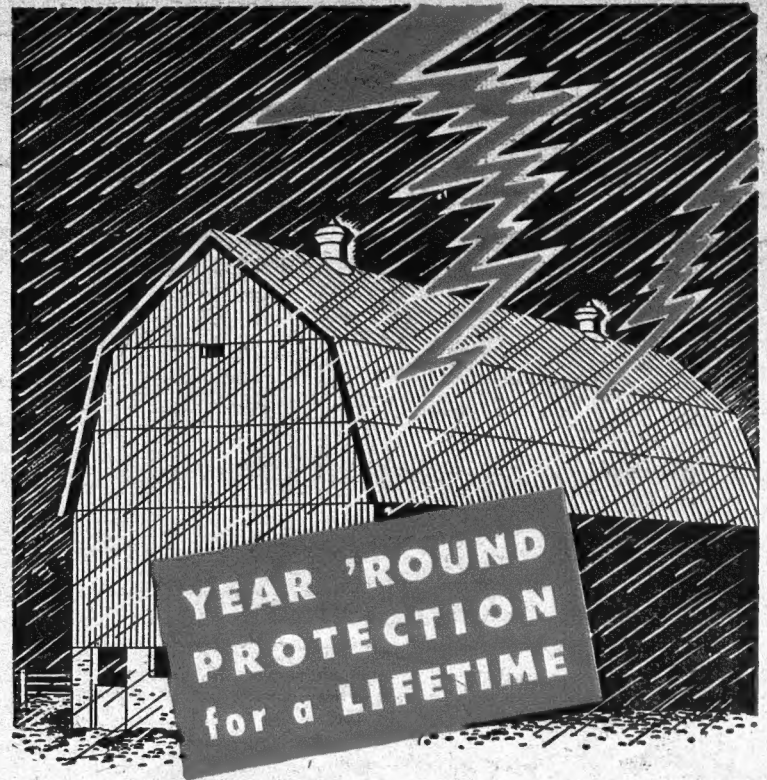
Breed character as depicted in head is something else. Perhaps it is not co-related with volume of milk production or yield of loin steaks but at least it need not be incompatible with or antagonistic to useful performance and it is something to be preserved.

The Hereford, the Shorthorn and the Aberdeen-Angus breeds have their respective personalities, just as they have their own colors and markings.

The qualities which inspire, whether breed character, breed history or individual beauty, are not to be considered as unimportant. Inspired breeders will make the most progress and carry their breeds to the greatest heights.

As breed character should be safeguarded, so should sex-character be considered in making selections of breeding stock. Bulls should show masculinity and cows show femininity. Experience reveals that both bulls and cows are better bets as breeders if they display their sex-character plainly.

What, then, is a good head on a beef animal? In point of shape, width at muzzle and forehead is of first importance. Yes, that good head should be short but it's beginning to appear that it is a mistake to go to extreme in this if we wish to keep well away from the "pony" type in cattle. In the words of one western stockman, "When I see a nice pony head, I expect to find a nice pony behind it." That cattleman would add that he wants to raise cattle with size and quality, but he would be willing to sacrifice some of the extremes in compactness and refinement in order to get growthiness, vigor and good size. He would say, also, that the best in heads is the one that fits the kind of bodies that cattlemen want to raise. And finally, the good head should be typical of the breed it represents, with full and bright eyes, a sense of personality and strongly masculine or feminine, as the case may demand.



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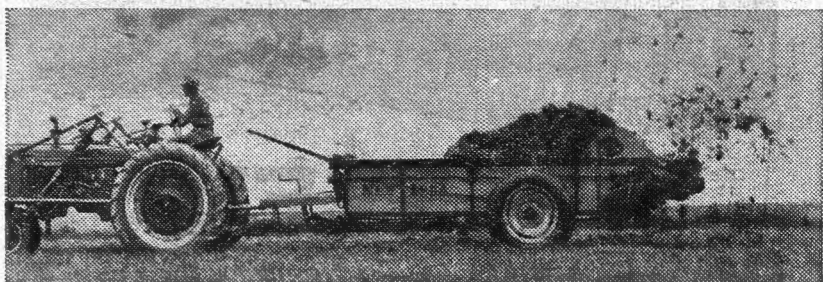
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There's new emphasis on the value of organic matter

By WILLIAM A. ALBRECHT,
in The Rural New Yorker

THE declining numbers of acres left for growing crops, and the dwindling supply of soil fertility, are bringing home to us the necessity of properly fertilizing our soils. The tonnage of available barnyard manure has long been insignificant as a source of fertilizer supply. Gradually we are coming to realize the basic fact that our soils are being rapidly worn out, because of our old concept of using them as a source for cash crops rather than as a means of growing crops completely to nourish our animals and ourselves.

Organic matter, such as animal and plant manures and accumulated virgin soil, has always been the most desired form of fertility for growing our crops. Now that we have mined most of the original organic matter supply, to say nothing of the inorganic, we are debating the question among ourselves as to whether we can produce good foods and feeds from our crops when they are grown without organic manures to help fertilize them.

Soil itself originated from the rock minerals. In trying to learn what the soil feeds to the plant, we made a list of the inorganic elements found in the plants after reducing them to ashes. Inventories of the inorganic elements in the plants were then matched against inventories of the soil's similar contents. Such knowledge built up the inorganic concept. This knowledge also is serving well for our testing of the soil's needed supplies as against the growing plant's contents; for we have learned that a growing plant contains 13 or more essential inorganic elements which move into the crop from the soil. By the help of such tests, we make our decision when buying needed chemical fertilizers to act as supplements to the incomplete plant and animal matter of the soil.

Success to date in improving the yields of our crops, by means of commercial fertilizers, has naturally emphasized the crop's need of inorganic nutrients from the soil. Unfortunately, such success, in some instances has made us prone to discredit the value of both plant and animal manures. It has encouraged us to believe that manure is worth no more than the total of nitrogen and inorganic elements it contains. Yet tests have shown otherwise when plants are grown by hydroponics, for water culture. The growing of plants in pure water, to which has been added the chemical equivalents of the manure's ash components, is not the equivalent of growing them in rotted manure itself.

Organic processes in general, however, and most biochemical reactions, do not give such speedy comparative performances. Even some inorganic reactions, particularly those including the element silicon, making up such large molecules as the clay, are slow and sluggish. Only lately have we become able to build up organic compounds like the synthetic fibers (rayon, vicara, orlon and others of industrial output) to substitute for those created naturally. Something of this sort may later become applicable for soil use.

Plants will grow when fed on strictly inorganic elements in water, but that fact is no refutation of the possibility that such a seemingly good diet for plants might not be a better one if supplemented by some organic compounds. The limitations of hydroponics indicate how much such plant growth procedure differs from that of plants growing in the soil.

The pioneer farmer looked much to the organic matter of the soil to produce the crops for feeding his young animals. Early sales of commercial fertilizer, particularly in the south, met with resistance, due to the farmers' just contention that bird guano from South America helped their crops more than they were helped by Chile salt-peter.

New Wonder

Now we find that the antibiotics are doing wonders for us. Water extracts of the organic matter in soils serve as growth hormones in the laboratory for test plants. Hogs have long had the habit of rooting. They have been grown more rapidly under experiment if allowed on pasture, or if fed some sod soil or its equivalent in antibiotics, as compared to strictly dry lot feeding. Isn't it then time that we open our minds to the possibility that organic compounds, as well as inorganic, may be needed for better plant and animal nutrition, and for superior reproduction of their respective kinds?

Mushrooms are a food crop that grows by feeding wholly on organic matter. They grow in the dark; consequently they do not use energy directly from the sunlight. For energy, they must absorb organic compounds, and burn them or respire them. They create living organic matter by using dead and decaying matter.

Some field tests have been conducted at the Missouri station on the use of various kinds and combinations of organic and inorganic fertilizers for growing field corn. In these

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tests corn was grown on three plots treated as follows: (1) Limestone, (2) limestone and phosphorus, and (3) limestone, phosphorus and potassium. On these three experimental plots sweet clover was grown as a green manure crop, then plowed under ahead of the corn. As a control, corn was also grown on three comparable plots which received exactly the same inorganic fertilizers applications (1, 2 and 3), but in this case the sweet clover was allowed to occupy the plots for the entire season. The sweet clover plants grew to maturity and produced seed; the seed was harvested and the remaining plant residues were then plowed under in the fall to be followed the next season with a corn crop.

As a result of these treatments and applications, higher yields were obtained when larger and more complete combinations of inorganic fertilizers were used as in plot No. 3. However, there was no significant difference in corn yield between using the sweet clover planting, earlier in the season as a green manure crop, as compared with letting it mature.

The grain grown on each of these plots was harvested and later put in separate compartments of self-feeders, and made available to hogs. The hogs voted, as manifested by their appetite, in favor of organic matter in the form of mature sweet clover residues (plus the fertilizers used in plot No. 3), as compared to the clover as an immature green manure crop.

Recent research by Dr. Francis M. Pottenger, Jr., of Monrovia, California, points out that differences in the way the feed was handled or processed, for the animal making manure from it, may be reflected as corresponding differences in the character and manner of growth by the plants and their seeds on soil fertilized with such manure. For example, some dwarf bean plants were grown on the sand of various pens into which cats had buried their dung for the two preceding years.

The pens included cats fed alike in all respects except for differences in their milk, which included: (a) Condensed, (b) evaporated, (c) pasteurized, and (d) natural (raw) milk.

At the end of the tests, it was clear that the four different kinds of milk, fed to the cats,

produced different growth effects on the bean plants which had been fertilized by these various cat dungs in the sand pens. Dung from all the cats that were fed heated milk produced only sparse plant growth. On the other hand, dung from cats fed the natural (raw) milk produced such fertile soil that a dense, healthy plant growth resulted.

Strange Results

This first bean growth later was removed, and the pens were then seeded to the ordinary white bean of dwarf growth habits. It was most surprising to note that in all six pens, in which the buried dung was from cats fed the heated milks (condensed, evaporated and pasteurized), the bean plants grew only as dwarf plants. But in the two pens in which the buried dung was from cats fed unheated milk, the bean plants grew, not as dwarf plants, but as pole beans with their vines going to the top of the screened sides of the pens.

Here is an illustration that organic compounds, as well as the inorganic elements, may be travelling in cycles: First, from the soil into the plant, for their build-up into more complexity there; then into the animal, for possible digestive simplification there and later, through the excretions back to the soil, for another cycle of nutritional service.

It is particularly significant that the illustration cited relates to the amino acid tryptophane, which is the major deficiency protein of the corn grain.

When the effects from fertilizers on soils are measured only by yield variations in vegetative bulk, recorded as tons and bushels, there is little chance that we shall recognize crop differences demonstrating the varying effects between the use of inorganic and organic fertilizers. Our animals, however, tell us that the crop's nutritional quality reflects the different organic and inorganic compounds feeding the plants. When we learn to measure the crop's responses to soil fertility by more than bulk values and ash differences, then the contributions of the soil, both organic and inorganic, to plant nutrition will be more correctly realized.

Socrates knew about wheat

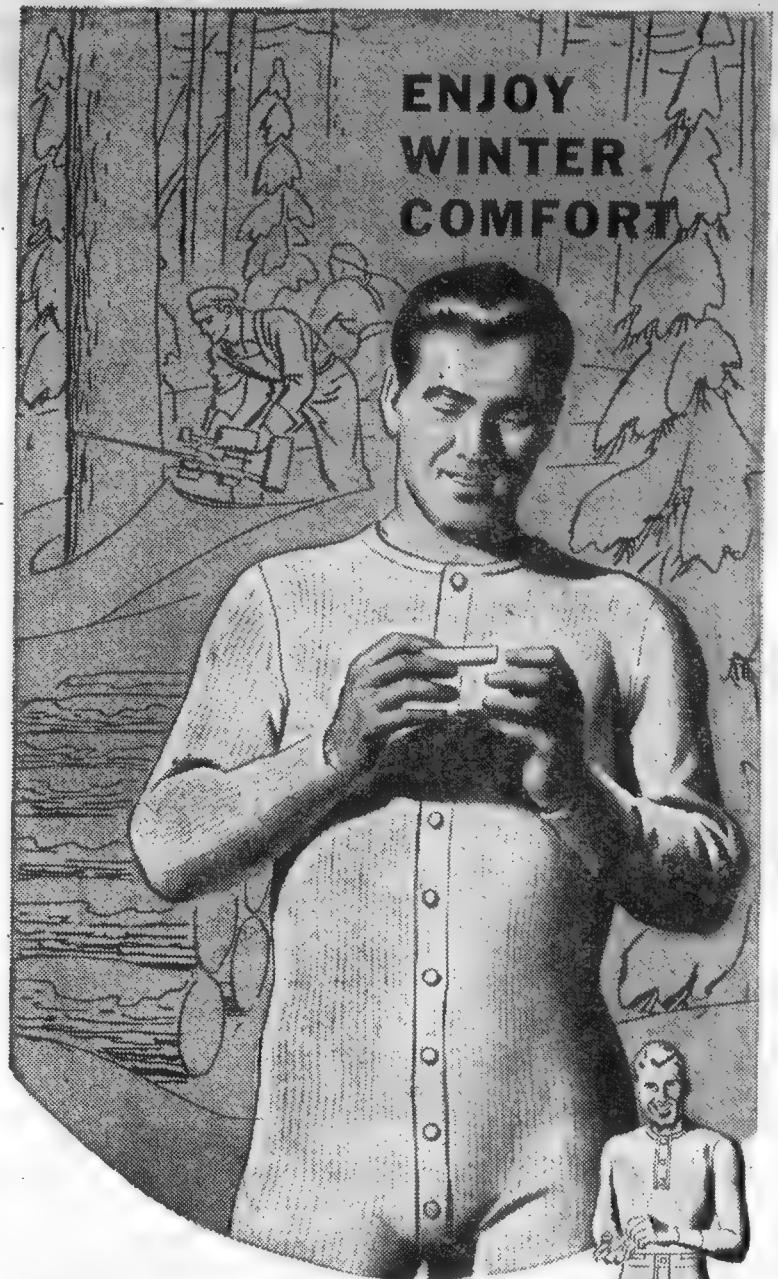
THE early Greek philosopher Xenophon told this story of his friend Socrates.

When a brother of Plato told Socrates he wanted to become a politician, Socrates quizzed him at length, and then put the question: "How much wheat," asked Socrates, "would be required to feed the inhabitants of 10,000 houses for a year?"

When the young man failed to answer, Socrates said, "Nobody is qualified to be a statesman who is ignorant of the problems of wheat."



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OUTDOORS with LEE STRAIGHT

One of the most frequent questions asked outdoor writers is "What's the best all-round hunting rifle cartridge?"

The proper reply must be "There's no all-purpose cartridge any more than there's an all-purpose surgical tool".

If the hunter hopes to shoot pests, deer, moose, elk, grizzly, sheep and goat — if he likes to plink and is a match rifle shot — he must have several rifles or be content with moderate success. You can shoot gophers with your 30-06 but you'll do better with it mountain hunting. To illustrate: Two years ago my partner and I had designs on some bull elk and, after a long and dangerous stalk 9,000 feet high in the Rockies, we spotted three of the majestic harem bosses silhouetted against the snow more than 500 yards across a basin. We dared scramble no nearer for fear of spooking the harem of cows and calves only 100 yards below us in the frozen creek bottom.

The 30-06 I was using was stuffed with Canadian 180-grain ammo. I held my scope reticle three feet over the near bull's back, fired and saw him collapse into a patch of hemlock.

I took a half hour to punch snow across the basin to that bull and found a business-like hole, low through his ribs. He was lung-shot with the tip of his heart gone. The bullet had hung together and gone out the other side, but even at that tremendous range it had mushroomed enough to make a free-bleeding wound.

We said above there's no all-purpose cartridge, but if your rifle is a popular calibre like 30-30, 300 Savage, 30-06 or 303 British, it will do a pretty fair job on big game and "varmints" too, because you have a choice of two to four bullet types and weights.

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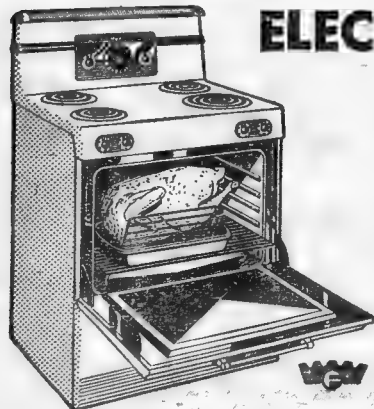
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The story of the Pharisee and the Publican

By FRANK S. MORLEY, PH.D. (Edin.), B.D.

SOME time ago a poll was taken of the American public and it was discovered that very few had any conception of personal sin or even of personal shortcoming. Most believed that they were quite all right. Most were quite self-satisfied. They thought that they were sufficiently moral, kind, good, and without serious shortcoming. (One of the chief meanings of sin is "falling short", a failure to measure up.) Most people interviewed not only thought they were as good as their neighbors, but much better!

Now that description fits the Pharisee. When we read of the Pharisee we could laugh at him were it not that we realize that we are laughing at ourselves. The Pharisee like us was self-righteous. How Jesus hated self-righteousness!

The Pharisee prayed "with himself". He was separated from others. Pharisees had so many demands of their ritual that they had to shut themselves off from ordinary social and business intercourse with their fellowmen in order to observe the regulations. They considered that they were defiled if they had any sort of business or social relation with other people.

One of their regulations, for example, had to do with hand washing. Their hands had to be washed with special water and in a stipulated quantity. The water was poured over their hands and allowed to run down over the finger tips. But there were thousands of such regulations. The very word Pharisee means "the separated one". He stood apart from others, despising others.

"With himself" might also mean that he prayed silently. Jesus is letting us see what the man was like in his heart. He is showing us how the prayer appeared to God. It is said that "a man is what he is in the dark". When all guards are down, when no one is looking, when no one can see, a man shows what he is really like. So a man's prayers disclose what he truly is. "Prayer is the soul's sincere desire". The silent prayer of the Pharisee is the self-disclosure of the man, what he was like in secret, in the dark.

Selfishness

"With himself" also describes his self-concentration. He cares only about himself. Is selfishness not the greatest sin on earth? Nothing does more damage, nothing creates more neuroses, more mental breakdowns, nothing is responsible for more cruelty, nothing makes more for war and civil strife, nothing creates more

worry and fear, than selfishness. Self-centred people shut themselves off from God. Self-centred people shut themselves off from mankind. Self-centred people destroy their own personalities. Self-centred lives are damned. Once I read a little verse — I don't know the author—

"I gave a little tea party
This afternoon at three;
'Twas very small, three guests in all,
I, myself and me.
Myself ate up the sandwiches,
While I drank all the tea,
'Twas also I who ate the pie
And passed the cake to me".

"God, I thank Thee", prays the Pharisee. So far so good. Too few of us thank God. And certainly he had reason to thank God, for by the Publican's own confession he had not been a good person. It was the attitude of the Pharisee that was wrong. Plainly he despised the human race. He rejoiced in the wickedness of his fellows. Two famous Scottish preachers, Bonar and McCheyne, were out walking one Monday. Bonar related, "I preached yesterday on the theme, The Wicked Shall be Cast Into Hell". Quick as a flash McCheyne replied, "Were you able to preach it with tenderness?" Yes, the preacher should reflect the awful sorrow of God whose will it is that not one of His children should perish.

Then the Pharisee went on to enumerate his virtues. Now before you condemn this Pharisee make sure that you are at least as good as he is. He fasted twice in the week. The only obligatory fast was on the Day of Atonement. He gave a tithe of all that he possessed. So in that also he went far beyond the legal requirement. But do you bother to pray regularly, let alone fast? Do you tithe your income, or even give regularly to God's work?

Their Virtues

Don't forget that these Pharisees were intense, sacrificial patriots. They were great teachers and students. They preserved the Mosaic teachings and traditions. Paul was a product of their schools. Gamaliel was one of their great teachers. Nicodemus is a Pharisee and he was the only man in the Sanhedrin to plead for Jesus when Jesus was accused. We would have seen this Pharisee as a leader in religious life, a man devout and upright, of indubitable honesty. But as Carlyle said, "The greatest of faults I should say is to be conscious of none". This Pharisee has no conception of religion as a life of gladness and goodness, a life in which good deeds were in-

spired by a gracious spirit, a life of communion with God and fellowship with man.

Good People Are Humble

The Pharisees had no humility. Strange that we should be such proud creatures when our bodies are so weak. Proud, when our achievements are so small. At the ancient Athenian university they used to call Freshmen, "The Wise Men". The second-year men they entitled "Those Who Loved Wisdom". But the students in the final year they called "The Learners". So the more we know, the more humble we become. Only very ignorant people are bumptious. Similarly the better a person is the more sinful he knows himself to be.

"And they who vain would serve Thee best

Are conscious most of wrong within."

As Luther said, "Not to be conscious of any sin means that we do not know God." When Peter sees the moral glory of Jesus Christ, Peter implores Christ to depart from him for "I am a sinful man, O Lord".

Now the Publican was a tax collector. This group of people were so hated that they could only go through the streets even in day time with a large body guard. They had sold out to the Roman conqueror and collected taxes for Rome. But they also enriched themselves. They did not work for a salary. They had purchased the job and made their money through graft. Their job made them vicious, coarse, and cruel. They were unpatriotic. There were three fundamental taxes, a ten per cent tax on the produce of the land, a one per cent tax on income, and a poll tax. Then there were huge custom duties, there were taxes for entering towns, for crossing bridges, and many other things. Publicans also made money by lending at heavy interest.

God Helps the Needy

Why should such a man be praised? Because he came to God in need. God can do anything for a man if the man acknowledges his need of Him. Need and faith. These were the only two things necessary. God cannot help the self-sufficient and the proud. Jesus makes it clear that the Christian Gospel is only for the needy. Not for the self-righteous. Not for the self-sufficient. Jesus came to save sinners. To restore sight to the blind. To set captives at liberty. The great theme of Christianity is the doctrine of the atonement. There would be no Christian Gospel if man did not need forgiveness. Read your Bible. Forgiveness runs all through it. The great question is, how can a man be just before God? How can a man achieve righteousness? The disciples are continually amazed at the goodness of God in sending His Son to die for the sins of the world.

Their pride melted before that forgiveness. Notice how Paul writes to the Galatians as "Paul an apostle". That was early in his ministry. Later he writes to the Corinthians and describes himself as "Least of the apostles". Writing to the Ephesians he says that he is "less than the least of all the saints (members)". Later still he writes Timothy that he, Paul, is the "chief of sinners". To most of us this sort of conviction is unknown. We need the prophet to accuse us as the prophet pierced David's indignant self-righteousness, saying, "Thou art the man!" And David was never a greater man than when he recognized himself as a great sinner.

All through the Bible runs the doctrine of man's sin and God's forgiveness. Look at our hymns, "Beneath the cross of Jesus", "Just as I am without one plea", "When I survey the wondrous cross", "There is a green hill far away", "Praise to the holiest in the height". There would be no Christian Gospel without the fact that man is a great sinner and Jesus Christ a great Saviour.

In the story of the Bonnie Brier Bush you remember how Dr. Maclure who had served his people faithfully for forty years now lay dying. One would think he might be comforted by the fact that he had brought his medical aid to them in rain and storm, by night and day. But no, and his friend Drumsheugh turned to the Gospel of John and read him for comfort that wonderful fourteenth chapter. But Maclure stopped him. "That is not for the like of me. It is too good for me." So Drumsheugh turned as the Doctor directed him to this story of the Pharisee and the Publican. As he reached the words, "God be merciful to me, a sinner", the dying man sighed in peace, "That might have been written for me or for any other old sinner who has reached the end of his life and has no good word to say for himself".

So with us. When the long trail is ended and the day is done and we have no good word to say for ourselves but aware of what we have not done, of the good we have failed to perform and the sin that stains our soul, we can only cry, "God be merciful to me, a sinner", speak Thou, O Christ, Redeemer Christ, and fill this pause!

Oat exports

IN the 1952-53 crop year Canada exported 64,900,000 bushels of oats, about 7 per cent less than the 69,600,000 exported the previous year. The United States was the only major market for Canadian oats, taking 59,500,000 bushels. The Belgium market absorbed 4,300,000 bushels and was the only other importer of consequence.



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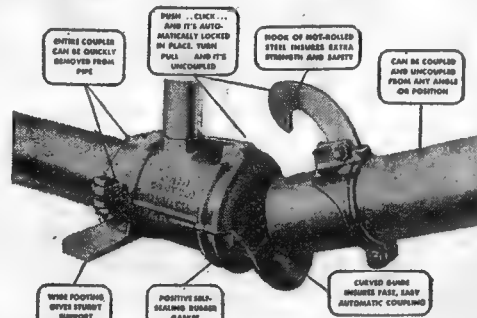
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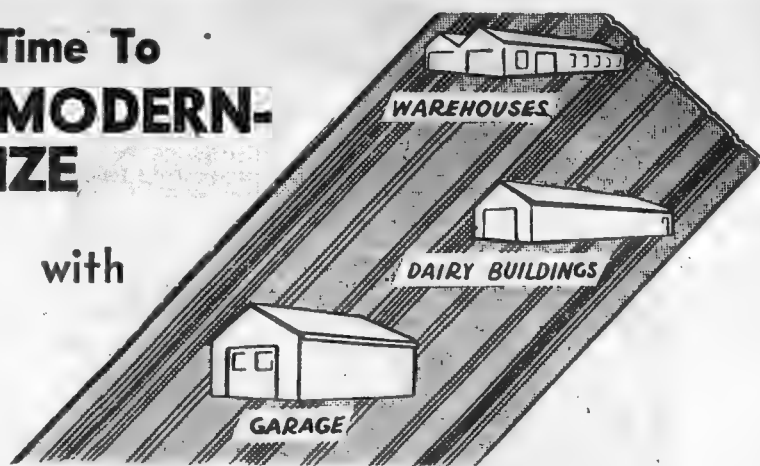
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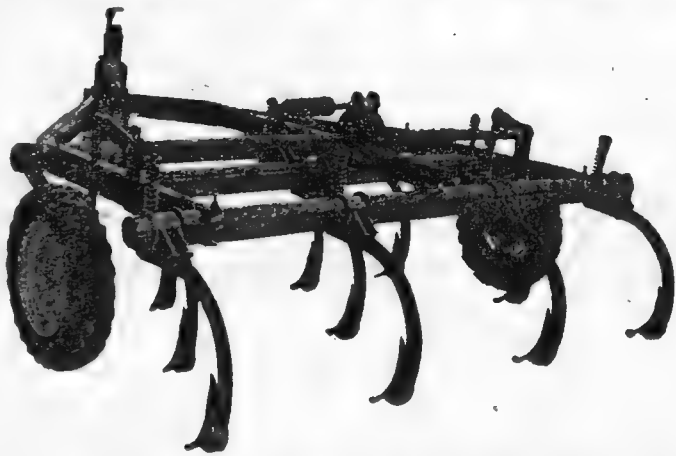
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Chicken dancing grounds and deer parks on your farm

By KERRY WOOD

ONE farmer likes to look at minnows. He enjoys watching the flash and dart of their swimming, so he dug out a spring near his house and made it into a pool measuring ten feet in diameter and two feet deep.

"The water is crystal clear," he told me. "In fact, it's too clear, because the minnows showed up so easy that ducks and kingfishers came and ate them! I then built a framework around the pool and tacked up chicken wire to protect the minnows. We've got a

screened nook with comfortable benches arranged around a pleasant bubbling spring, where in the minnows swim to provide a living picture.

Dancing Around

Most farm sanctuaries are much larger, generally including all the land to which the farmer holds title. For example, the other day a man phoned to tell me he had the last prairie chicken Dancing Ground in his district on his home acres. He had decided to make his whole



couple benches inside the screen, where we sit and watch the little fish."

He started with goldfish from a five-and-ten-cent store, but the birds nabbed all the pet fish. Then the farmer got his boy to net some shiners in a creek to release in his spring-pool.

"There are young suckers, some minnows called Sticklebacks, and another variety that look like trout but aren't. Someone told me they're Spottail Shiners. I don't much care what they are, just so they swim around looking pretty. I'm thinking of planting water-lilies there next spring, and we've got a few vines climbing over the chick-wire to shade the pool. Maybe it's a silly hobby, but I like it."

This minnow pond is probably the smallest of the wildlife sanctuaries western farmers have created on their home acres recently. Ever since I wrote a book on the history of a farmer who preserved a beauty spot on his homestead from 1885 until his death in 1937, with the final part of the tale describing how this region became a government wildlife park, my mail has been full of letters about farm nature preserves and how to establish them. The minnow-watcher has the smallest preserve; a vine-

farm a game preserve in order to protect the grouse, their dancing knoll and their nearby nesting sites. After discussing the pros and cons of "No Shooting" signs and mentioning the worrisome time he has had occasionally with grain-hungry mallards, this farmer decided on ordering a batch of signs to be labelled "Wildlife Preserve". He intends to tack them to his fence fronting on the main road part of his holdings.

A few farmers want to establish sanctuaries merely to keep shooters from trespassing. That is the privilege of the landowner, and no farmer will quarrel with the idea. But I am happy to report that in most cases, the people who want to create sanctuaries are genuinely concerned about offering protection to some form or all forms of beneficial wildlife. A man may own the land around a tiny lake where a pair of Canada Geese have nested for years; he wants to give them protection after the shooting season starts. Another gentleman wishes to preserve a marsh where a colony of the very useful Franklin Gulls build their nests. Then there is the man who has a herd of mule deer thriving in a scrubland part of his farm; he wants to call his place a Deer Park. Or a farmer owns a beautiful stand of trees

and believes it is worth preserving.

"How can I establish a sanctuary?"

There is a lot of red tape attached to the business of getting an official government sanctuary established on any parcel of ground. Where a large lake is concerned, the written agreement of all land-owners around the water area has to be secured. However, it is possible: government game or wildlife preserves can be created on private lands, if that's what you want.

I don't pretend to know the legal status of the matter, but it seems to me that if a farmer has the right to post his fence line with "No Shooting" signs, surely that same farmer can also put up signs reading: "Wildlife Preserve" or "Wildlife Sanctuary". To those who write me for advice on the matter, I simply advocate the use of such signs to mark their lands as a protected area.

A few good folk have told me that part of their reason for wanting to establish sanctuaries is to preserve a scenic or historic site, which they are quite willing to share with neighbors, friends, and the public at large. Some of them put benches, tables, and picnic facilities at these spots, to make them more attractive and convenient for visitors. It is a kindly gesture, much appreciated by many.

There are little drawbacks,

however. For instance, there is no caretaker at the government bird sanctuary near my home. Members of our local nature club have appointed themselves as unofficial caretakers, making it their duty to keep the picnic premises tidy. We find that some picnickers are careless or downright dirty about scattering papers, tin cans, and pop bottles. It has been our experience that a daily inspection is necessary to keep the picnic premises tidy. Signs asking the public's co-operation seem to help; better yet, enlist the active support of youngsters who visit the region regularly. And remember, for the one family or group that leaves an untidy mess behind them, you'll meet a dozen others who really appreciate the beauty spot and will do all they can to keep it beautiful.

The widow of the farmer about whose sanctuary I wrote up in my book has recently paid for a memorial entrance to our local preserve. The name of the homesteader is engraved on marble, the tablets set in concrete gate posts which hold the official government signs. But the good lady told me that, in her own mind, the real memorial was the land itself: the land where her husband had walked so many times, enjoying the loveliness of that little wilderness now preserved for all time as a Sanctuary.

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CANADIAN cattle are the healthiest in the world and buyers of beef and other retail meats have perfect assurance that the products purchased through approved channels are nutritious and healthful.

This point is made by the Council of Canadian Beef Producers in the face of recent reports about disease threats. Many of the diseases that create problems in other countries are unknown on Canadian soil and notwithstanding the experience of 1952, no country in the northern hemisphere has had less of foot-and-mouth disease.

As pointed out by Dr. H. C. Storey, District Veterinarian, Canada and United States are among the most progressive nations in eradication of bovine tuberculosis. In the federally-conducted eradication program, almost all of Eastern Canada and a large portion of Western Canada are now free from that disease and it is only a matter of time until the entire country can be classed as an Accredited Area.

All cattle and other livestock processed in modern Canadian abattoirs are subject to most rigid ante-mortem and post-mortem inspection by qualified officers of the Health of Animals Division of the Federal Department of Agriculture. Any carcasses or portions thereof

that cannot be confirmed for healthful qualities are condemned and marked for inedible purposes.

The small circular stamp bearing the words "Canada Approved" and appearing at various points over the carcass and wholesale cuts, is the consumer's guarantee that skilled officers have found that meat to be positively free from disease.

Meat inspection, which is based on state of health and suitability for human consumption, is not to be confused with beef grading in which the carcasses of highest quality are branded with a red or blue brand identifying them as choice or good quality as the case may be.



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Master farm family awards announced for 1953

WINNERS of the Master Farm Family Awards for 1953, as announced by Hon. D. A. Ure, Minister of Agriculture, are:

Howard Hymas Family,
Rosebud

Frank Jackson Family,
Keg River

Ernest Belzil Family,
St. Paul

L. B. Lohr Family,
Erskine

Emil Kvanberg Family,
Buford

Each family receives an award of \$1,000, an engraved plaque, and a name plate for the entrance.

Main objective of the program is to provide Alberta farmers with a practical demonstration of how a family can achieve success in farming and in family and community life. The program is intended to emphasize the advantages of the farming vocation and the spiritual and material rewards of farm life.

The Hymas Master Farm Family

The booming twenties had ended and the bleak depression days were just beginning when Mr. and Mrs. Howard G. Hymas were married. That was in 1929.

Howard and his brother Walter had taken over their father's 2,000-acre farm near Rosebud, together with a debt of \$55,000 the year before, and began the formidable task of freeing the land from this heavy burden of debt.

Today the Howard Hymas family is free of debt and a leader in the Rosebud area. Now they receive the

title of 1953 Master Farm Family for southern Alberta.

There are four members in the family, Mr. and Mrs. Hymas, Allison, 21 and Robert, 19. The farm, known as the Grasswold Farm, is located six miles south of Rosebud, in the rolling land at the edge of the Wintering Hills.

Mr. Hymas considers himself to be a mixed farmer. At the present time he has 1,300 acres of his 1,503-acre farm under cultivation, and livestock includes 90 purebred and six grade Shorthorns and 275 Yorkshire hogs. Modern farming practices, strip farming, the use of new chemicals and antibiotics for the livestock, have helped to make him one of the most successful farmers in the district.

Mr. Hymas was born in Nebraska and came to Alberta as a youth in 1914. His father farmed in the Rosebud district until his retirement in 1928, when he turned the 2,000-acre farm over to his two sons, Howard and Walter. Although both sons preferred individual farming to a partnership, they agreed that the latter course was the only way they could successfully eliminate the heavy farm debt.

Howard Hymas was married in 1929 to a school teacher from Cal-

gary and built a new seven-room home a half mile south of his brother's place. Howard and Walter worked together as a team throughout the depression and war years, with the ultimate goal of eliminating the debt and going into farming for themselves. As the years passed, each purchased his own machinery, and when the debt was finally eliminated in 1948, the partnership was dissolved.

At the present time, Mr. Hymas is the president of the Seven Creek Water Users' Association, the Rosebud Rural Electrification Co-operative Association, and the Southern Alberta Shorthorn Breeders' Club; director of the Rosebud Community Hall Association, and Drumheller Agricultural Society; Chairman of the Rosebud Seed Plant; leader of the Rosebud-Rockyford Calf Club; and member of the Calgary Board of Trade, Rosebud Home and School Association, Standard Masonic Lodge, and Rosebud United Church.

Mrs. Hymas is a past president of the Rosebud Home and School Association, and member of the Rosebud United Church Women's Auxiliary, Rosebud Branch of the Red Cross and the Drumheller Agricultural Society.

Her daughter, Alison, is taking the fourth year of interior design at the University of Manitoba and plans to follow a career in drafting and design after her graduation. She had previously taken training at Mount Royal College in Calgary and at the Banff School of Fine Arts.

Robert was a freshman in Agriculture at the University of Alberta last winter and is in a one-third partnership with his father. He is starting his own herd of purebred Shorthorns this year and plans to follow a career in farming at the Grasswold Farm.

Belzil Master Farm Family

Modern crop rotation and livestock breeding practices make the Blue

Master Farm Homestead



An equal partnership between father and son has helped to make the Belzils a Master Farm Family. Above, Mr. Belzil talks with his son, Fernand, in front of their farm.

Hill Ranch one of the finest mixed farms in the St. Paul area. This is the home of the Ernest Belzil family, which has been selected as the 1953 Master Farm Family for the North-eastern Alberta division.

Located eight miles west of St. Paul, the Blue Hill Ranch comprises five quarter sections of land in a rich mixed farming area. Of this, the Belzils have about 700 acres sown to wheat, oats, barley and forage crops. In addition, there is a purebred herd of about 75 Herefords which is being raised to top standards through a long range breeding program.

Mr. Belzil is in equal partnership with his son Fernand, 29, who resides in a separate home on the farmstead. Other children in the family include Euclid, 36, who is the assistant secretary of the St. Paul municipality; Aline, 37, now Mrs. J. O'Driscoll; the twins, Cecile (Mrs. Roy Mackaymiuk) and Blanche (Mrs. Nick Gardy), 31; Mae, 26, who is a typist in Edmonton; and an adopted son, George Beaudin, 17, who is in grade 11 in school.

Born in St. Jean de Dieu, Quebec, Mr. Belzil moved to Rhode Island with his parents in 1898 when he was 11 years old. The family later moved to New Hampshire and worked in logging camps until 1908.

In that year Ernest Belzil and his brother Joseph decided to return to Canada and take up farming. Heading westward, they halted at Vegreville. There they heard that the old Metis colony of St. Paul de Metis which had been operated unsuccessfully by the Catholic missionaries was being abandoned and the land opened for settlement.

Ernest and Joseph immediately travelled across country to St. Paul and took out a homestead in the Owlseve district, just north of the present farm buildings. A team of oxen was purchased and for the next three years the Belzils sweated and strained at the slow task of clearing the land and grubbing roots from the rich soil.

The partnership remained in effect for six years, until Ernest Belzil married a girl from St. Joseph Mehinak, Quebec, in 1914. Mr. Belzil recalls that he and his brother had only three head of horses between them at the time. This mathematical problem was solved by each taking one horse and exchanging the third horse back and forth as needed.

Over the years, Mr. Belzil gradually added to the small homestead, until it reached its present size of five quarter sections.

The Belzils have found one of the best aids to successful farming is a definite plan for the future. With the assistance of the district agriculturist in St. Paul, they have formulated a ten-year cropping program and improvement campaign. This program, now in its second year, sets out the crop sequence and summarizes the proposed major activities for each year. For example, a year's program may state that No. 1 field be summerfallowed, the ditches cleared and the fence widened. It may propose also that a new winter corral for the young bulls should be completed, fill work started on a small bog, and several buildings painted.

So far, the Belzils have been able to complete each year's assignments with little difficulty, and have found that through a long range program the more difficult tasks can be spread out over a period of years. It has shown that, with an objective, a greater amount of farm work can be completed each year.

Lohr Master Farm Family

When George Lohr arrived in Can-

ada from South Dakota in 1900, and took up land in what is now the Erskine district, under squatter's rights, little did he guess that 53 years later, that same land would figure in his son's Master Farm Family Award.

George Lohr came to Canada with ideas of a cattle ranch. The Erskine district, with its bluffs of trees, woodlots and pasture fields, suited his needs, so he settled there with his family, later taking out a homestead. At the time of his retirement in 1936, his old homestead was added to the property of his son Lester, and in 1953, it was part of the farm awarded the Master Farm Family honor for the east central district of Alberta.

The Lester V. Lohr family, which consists of Mr. and Mrs. Lohr, their son Lloyd and his wife and two daughters, farm 17 quarters of land in the Erskine district. The farm is operated as a family project, with everyone pitching in to work the more than 1,200 acres under cultivation.

Lester Lohr was 12 years old when the family moved from South Dakota to Erskine. Ten years later, with lumbering experience behind him, he took out a homestead in the same district, and then left to attend the Manitoba Agricultural College from which he graduated in 1915. During spring and summer vacations, Les Lohr worked his homestead and in 1912, he added a second quarter. Following his graduation, Mr. Lohr spent a year as an agricultural representative in Manitoba, before returning to what was to become "Sprucevale Home".

In 1920, Les Lohr married petite Beula North, a district neighbor since 1903. Mrs. Lohr also came to Erskine from South Dakota. She gave up teaching to become an enthusiastic farm wife, and she still is.

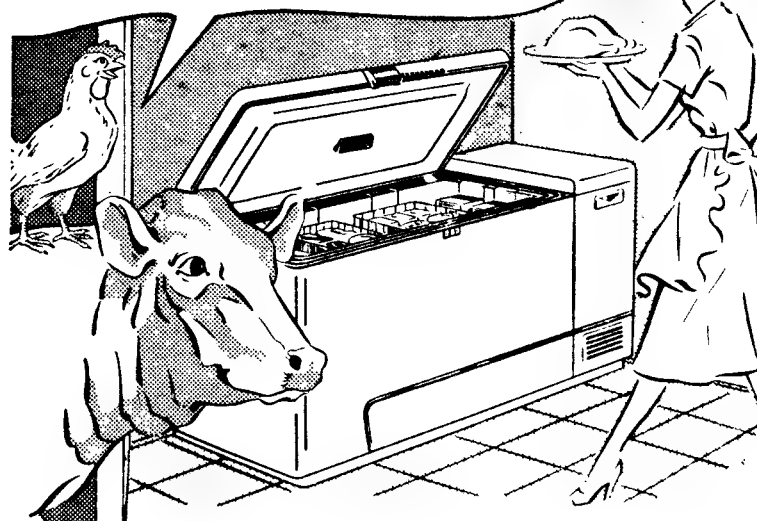
"Sprucevale Home" is aptly named. As far back as 1912, Les Lohr started transplanting spruce trees from the banks of the Red Deer River, to his property. To date, some 1,200 to 1,500 spruce have been transplanted.

While Mr. Lohr shows more interest in the crops, and Lloyd in the stock, they work together on every farm operation. Lloyd, who is an agricultural school graduate, owns the purebred Shorthorn cattle. Both father and son own the Yorkshire hogs, Percheron horses and Barred Rock chickens. Of the 17 quarters farmed by the Lohr family, Lloyd has six quarters of pastureland in his name. But regardless of ownership, as Mrs. Lohr put it, "Everybody works for one farm, and everybody takes out according to his needs." The father-son partnership is as simple as that.

The Lohr family owns a total of 2,680 acres of land, acquired by homestead, purchase and inheritance. About 1,200 acres of it are under cultivation and the balance is in virgin prairie, grassland and woodlots. They grow Thatcher wheat, Victory oats, Montcalm barley and rye, and their crop rotation program keeps the yields well above average for the district. In 1952, the Lohrs harvested 100 bushels of oats to the acre, 60 bushels of barley and about 35 bushels of wheat.

The rye this year, will produce at least 40 bushels to the acre. In their crop rotation program, each field is summerfallowed, then sown to a crop of wheat or rye, then oats and finally barley. Large scale livestock production has led to the growing of a lot of forage at "Sprucevale". Alfalfa, crested wheat grass and brome are grown in large quantities. The

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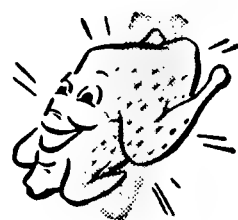


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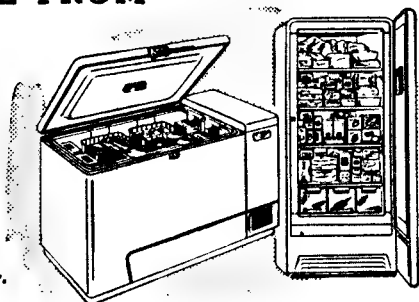
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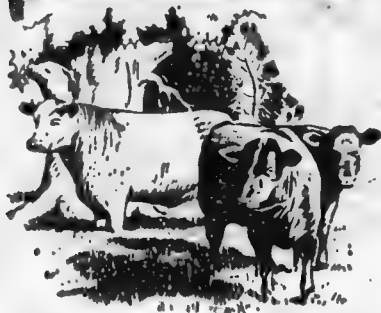


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41-3

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Master farm family awards announced for 1953

plan here is to leave the forage down about eight years, using it for hay and pasture and then returning it to the cereal rotation.

The Lohrs still employ horses around the farm for a number of jobs, and still use some horse-drawn machinery. "There's just enough work, especially in the winter, to make them pay," said Mr. Lohr. They have about 20 Percheron horses, and raise from two to four colts a year.

The Yorkshire pigs have a history of their own. Lloyd joined a local pig club, organized in 1940 by R. D. Price, Stettler District Agriculturist. He started at that time with one pig, but the number grew each year, and today, there are 36 purebred Yorkshire hogs on the Lohr farm. The Lohrs also keep about 225 Barred Rock chickens.

Lloyd, a half century after his grandfather settled in the district with his dreams of a cattle ranch, has begun to make those dreams come true with his 72 head of cattle. Most of them are purebred Short-horn. During the summer, these cattle have almost six quarters of pasture for grazing, and in the winter they grub out their own feed in the fields until January.

Jackson Master Farm Family

Modern homesteaders who sometimes feel that developing a productive farm in newly opened wilderness is a hopeless, heart-breaking project may take encouragement from the story of Frank Jackson, who farms

640 acres at Keg River Post, 420 miles north of Edmonton.

Isolation, a complete lack of roads and other communications, and a short growing season did not discourage Mr. Jackson when he settled in the north in 1918. Now 35 years later, his success and the achievements of his family have been recognized in their being chosen as Northern Alberta's Master Farm Family for 1953.

"They told me there'd be no place to sell my grain if I did manage to grow any," Frank Jackson said. "I've grown plenty and always sold every bit of it. It meant building my own roads and wagons but there was always a way and I found it."

The Jackson farm dominates the tiny Keg River settlement. From the Hudson's Bay Company trading post, the handsome farm home and numerous smaller buildings sprawl to the north-west, looking very much like a new village which has not yet been marked on the empty spaces of northern Alberta's map.

Mr. Jackson is a general farmer, with grain as his major crop, but with a livestock and poultry sideline which gives his farm operation the flexibility to meet sudden market changes.

He keeps an average of 200 acres in Garnet wheat, 150 acres in Victory oats, 250 acres in Olli barley, and about 30 acres each in flax and alsike. His oats yield averages 80 bushels to the acre while he reaps about 30 bushels of both wheat and barley to the acre.

His cropping program is based on a four-year cycle — two successive years of wheat, a year in oats and then a year in barley. After two successive cycles, he seeds down the land in forage crops for three successive years, breaks the land and repeats the sequence.

His livestock is made up of 10 purebred Angus beef cows and a splendid purebred bull, two dairy cows which are a cross between Short-horn and Holstein, 9 first-grade Yorkshiresows and a small herd of Suffolk sheep. Farm neighbors view the sheep with some condescension but Mr. Jackson bought them for a valid purpose. Sheep grazing around his yard and corrals keeps his farmyard clean and free of weeds with the minimum of effort.

You don't have to visit long with Frank Jackson to realize that here is a most remarkable man. An efficient farmer, a master craftsman, a mechanical wizard and a community leader, Mr. Jackson has learned everything he knows by practical work. He had no formal education or training in any field, but with a natural intelligence, a receptive mind, determination and limitless energy he has mastered a number of skills and still had time to dabble in taxidermy and do some painting.

Every building on the Jackson farm has been built by the versatile Mr. Jackson. All are made of logs except a new barn which was built very quickly to provide valuable grain storage space lost when the old barn burned suddenly last fall. All electrical wiring, heating installations, and water systems also were installed by Mr. Jackson.

The two-storey house looks so modern both from exterior and interior appearance that it is hard to believe that it is built around a pair of historic log buildings. Five years of work went into the house with Mr.

Master Farm Homestead



The service entrance to "Sprucevale Home" in the Erskine district, is a combination of the old and the new. The old wagon wheels, painted white and blue, depict the three generations of Lohrs who live on the farm, and the new sign announces the livestock business of this Master Farm Family for 1953. The fireplace in Les Lohr's home is built from local rock. There are also homes for his son, Lloyd, and for the year-round employee, Ray Smith.

Master Farm Homestead



The Grasswold Farm, home of the Howard Hymas Master Farm Family.

Jackson doing all the work, even to cutting the trees and sawing the lumber from them.

Kvarnberg Master Farm Family

The size of a man's farm is not necessarily the measure of his success. More important is what he makes of his land. What the Emil Kvarnberg family of Burford, Alberta, has accomplished with a quarter section seven miles southwest of Calmar, has earned them the title of Master Farm Family for 1953.

The Kvarnbergs have worked together through the bad years and the good, giving to each other the encouragement that is necessary to build a prosperous farm. For 36 years they have farmed as a family unit, steadily increasing the productivity of the land, the quality of their stock and attaining the success that is born of hard work.

Emil Kvarnberg came to Canada from Sweden in 1905, to settle with his family on his father's homestead in the Buford district. In 1912, when he was 21, he purchased a quarter section of land adjoining his father's homestead. The price was \$2,000, the down payment \$500. For five years, this new land-owner struggled to pay the \$90-a-year interest on the balance owing on his farm. He worked in a sawmill during the summers of 1914, 1915 and 1916, his wages in those three years increasing from 85 cents to \$1.50 a day. He did carpentry work as well, and finally, in 1916, he started breaking his quarter section of land. His only equipment was a walking plow with horses. Tree roots were grubbed out by hand.

Although Emil Kvarnberg now has all the modern machinery he needs to run his farm efficiently, he started out with a binder, walking plow, rake and mower, and drill, owned jointly with his brother, and loaned back and forth between the two farms. As for livestock, he had four cows and four horses which he purchased from his father.

By 1917, Emil Kvarnberg was ready for marriage. The wife he chose had been a resident of the Calmar district since 1898, when she and her family moved to Canada from Minnesota. Mrs. Kvarnberg, too, tried her hand at a number of occupations before settling down to life on a farm. She had been a teacher, a stenographer and a domestic.

The Kvarnbergs have three chil-

dren. LeRoy is the eldest. He is married and has his own quarter at Warburg, about 23 miles west of the home farm. He purchased it in 1944, with the assistance of his father. LeRoy has two children, Judy, 13, and Jimmy, 9, who both attend the School for the Deaf in Saskatoon.

Ernest, who is 33, works the farm with his father. He is married, and has a daughter, Beverly, who is just a year and a half. For some time, Ernest had his sights set on a career in architecture, but after a year of study, he decided to make farming his way of life. The architectural study, however, has been of great assistance in planning and constructing the new buildings on the farm.

Verna Kvarnberg is a photographer. She lives in Edmonton, where she took both stenographic and photography courses, and is now employed by Garneau Studio. She has recently returned from Trinidad where she spent a half a year photographing the people, city and surrounding country.

Up to the last two years, the Kvarnbergs did all their farming on one quarter section. Since then, Ernest has rented a quarter and worked that along with the home farm. They grow Olli barley, Larain oats, Redwing flax and Altaswede clover, with yields for each crop well above the average for that district. Last year, they harvested 700 pounds of clover seed per acre. Ernest largely credits this high yield to the bees which are kept on the farm. Barley generally yields an average 40 bushels to the acre, oats 50 and flax more than 20 bushels.

To keep the soil in good productive condition, a careful cropping program has been introduced. Forage is grown for two years, and then grain for three. Whenever necessary, the land is summerfallowed. Ernest has built a small grain elevator right on the farm and a fanning mill for cleaning seed, both of which add to the convenience and efficiency of farm operations.

No man is ever cheated out of an honorable career unless he cheats himself. Believe in yourself. Do your work the best you know how and you will not be cheated—your efforts will bless all who come in touch with you. —Emmerson.



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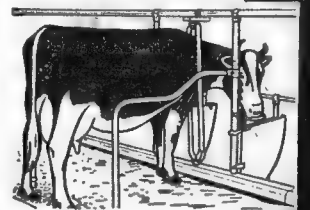
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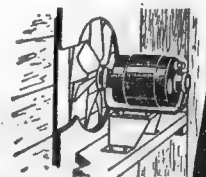


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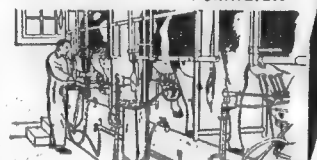
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Last call for outdoor gardening

By H. F. HARP

AT this season of the year much of the earlier enthusiasm for gardening will have waned, but those plantsmen who show concern for the winter welfare of their plants will realize that from now until freeze-up is a busy season with planting, tidying up and protecting choice plants from winter injury.

There are many hardy plants and bulbs that may be successfully transplanted now, in fact, the work is best done in the fall rather than the spring. Considering first the bulbous plants, two important groups are the lilies and tulips. Lilies in great variety are now available to prairie gardeners and may be had in bloom from June until the end of August. All are best planted now.

Choose a well-drained site, open and free from the encroachment of tree or shrub roots. Low-lying areas where spring run-off water is liable to linger will not provide the best conditions for the lilies. Each bulb should be set with a few inches of coarse gravel under it to allow excess water to drain away freely.

The average depth of planting is about six inches. Let the size of the bulbs be the guide. Small bulbs such as Coral lily are planted only four inches deep, while Centifolium, Willmottal types, Martagons, and Henryi should be set eight to ten inches.

Madonna lily (Candidum) differs from the rest of the tribe in making a rosette of leaves at the base. These leaves persist over winter if the plants are well protected. Plant Madonna lily about two inches deep and cover with leaves and "brush". The brush covering will be found beneficial to the other varieties of lilies that have been newly planted.

Established plantings of Tiger lilies or Candlestick lilies that have become unthrifty due to overcrowding may be dug out and separated. Replanting should be done immediately, taking care not to allow the bulbs to dry out.

A row of Tiger lilies along a fence or as a background for perennial plants can be a rather handsome feature in the garden. If such a planting is contemplated, the bulbs should be set about six to eight inches apart in a single row about six inches deep.

Tulips

Judging from the many letters received at the Morden Experiment Station, there are many disappointments among those who had planted tulips last year. The main reason for failure was due to excessively dry soil conditions at planting time, shallow planting, and lack of early snow cover.

Tulips are often planted where annuals have spent the summer and sapped the soil of moisture. Success with these cheerful harbingers of spring will be assured if attention is given to a few important requisites. First the bulbs should be purchased from a reliable seedsman and planted six inches deep, spacing the bulbs six to eight inches apart.

Keep the colors separate as more effective beds will be obtained by this arrangement than by mixing them. Darwin tulips are best adapted for outdoor planting. Of the many varieties tested last year at Morden, the following varieties were outstanding: Golden Harvest, Nyphetos, Queen of the Night, Bartagon, Prunus, Mme. Krelage. There are scores of varieties offered for sale and most will be found satisfactory.

Old plantings of tulips that were lifted earlier should now be graded to separate flowering sized bulbs from those that require another year to reach flowering size. These smaller ones should be lined out in the vegetable garden in rows two feet apart, planting the bulbs four inches deep. By next fall they will have reached flowering size and may be transplanted to the flower garden.

Peonies

There is still time to plant peonies, but the sooner the job is completed the better.

Peonies are perhaps the longest lived perennials we have. They resent being moved and

take several years before they become established. The blooms are often not typical of the variety until the third year from planting. The chief causes of failure are due to setting the plants too deep or planting too close to trees or shrubs.

Open, sunny positions must be found. Good, deep cultivation of the soil is necessary. Space the plants three to four feet apart with the eyes about two inches below the surface of the soil. Place a quantity of "brush" or cornstalks over these newly set plants so that snow will pile up over them.

At this season of the year, alterations and new developments are best carried out. Garden fences, rock gardens, and pools, as well as other features are best constructed in the fall. Ornamental fences can be handsome and attractive. Oak poles, two or three inches in diameter, with the bark remaining on them, makes excellent material for pergolas and fences. The uprights should be of heavier material, say about five or six inches in the butt and well treated with a wood preservative.

Rock Gardens

A rock garden should be something more than a pile of stones with soil scattered between them in which is planted all sorts of annuals and low-growing perennials.

A few fairly large, well-weathered limestones will give more character than all the roundish granite ones, no matter how much time has been spent in construction.

The aim should be to imitate a natural outcropping of rock. Keep the stones on their flat sides. Never place stones on edge. Don't build a mound, but rather have the structure



low and spreading.

A great variety of alpine plants are available these days, all hardy and reliable. No form of gardening offers more enjoyment than studying these daintiest of nature's gems which year after year return and show their happy faces to us, almost before all trace of winter has vanished. A list of alpine plants may be had by writing the Experimental Station, Morde, Manitoba.

Garden Pools

A simple way to construct a small pool without having to go to the expense of buying lumber for cribbing is to take out the soil for the walls two feet deep and six inches wide; pour the cement to ground level and allow to set for a week. The soil can now be dug out from the inside and the floor put in. Clean gravel free of alkaline. Soft water and new cement is recommended. The strength should be not less than four to one.

Shrubberies

Where rank growth of shrubs is interfering with other less vigorous plants or obstructing sidewalks, and it has been decided to take them out, this work had best be done now. In fact at this season of the year deciduous trees and shrubs may be moved with safety if reasonable caution is taken and transplanted to more suitable sites in the garden.

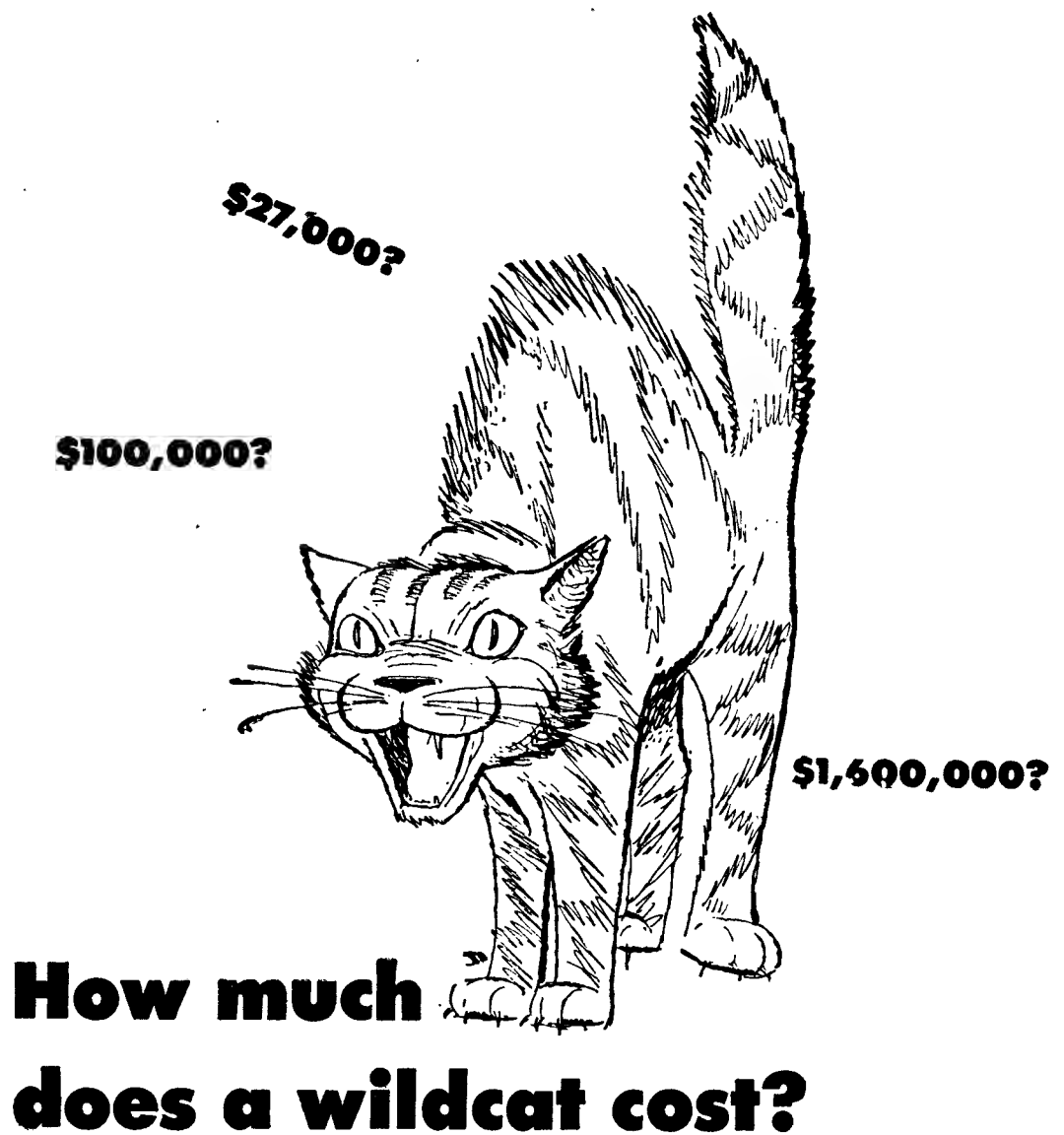
If soil conditions are dry, it will be necessary to well soak the area around the roots. This is best done the day before it is intended to carry out the work. Dig around the base a foot or so from the center carefully preserving the ball of soil from crumbling.

Have the hole dug in readiness and a little deeper than actually needed so that the plant can be pulled up a little before treading it firm. This will allow the roots to spread downwards and also to permit the soil be shaken down among them. Water the newly set plants and mound a little soil about the base.

Annuals

Tender plants such as Geraniums and foliage plants that furnished beds and window boxes during the summer, may now be lifted and potted to be taken indoors and used as house plants. A good plan is to take cuttings of these which will root readily in pots of sand. Shade the cuttings from strong sunlight for a few days by placing a sheet of newspaper over them. The Geraniums will stand full sun.

Careful attention to watering will be necessary giving only sufficient to prevent wilting. The young plants will not require potting until the days start to lengthen again. About six cuttings may be accommodated in a five-inch pot. They are best planted around the edge of the pot rather than towards the center.



A "wildcat" is a well drilled in an area where oil has never been found. Drilling costs vary, but the average wildcat in western Canada runs to more than \$100,000. One well cost \$1,600,000—and found no oil!

Oil is making an increasingly important contribution to our standard of living. How many of these questions about it can you answer?

How many wildcat wells find a new oil field—

1 in 3? 1 in 7? 1 in 23?

Since 1939 the cost of living index has risen by 85%. During that time has the price you pay for gasoline gone up by—

44%? 79%? 103%?

A lot of oil has been discovered in the west since 1946. In that time have Canada's oil reserves increased—

4 times? 23 times? 37 times?

How many companies, would you say, are engaged in the oil business in Canada—

23? 174? 750?

Canada's growing oil industry means orders for many businesses, jobs for many Canadians. Last year Imperial's purchasing department bought equipment and supplies from Canadian firms amounting to—

\$12 millions? \$56 millions?
\$110 millions?

The long-term average in western Canada is 1 in 23. Only 1 in 87 has found a field capable of producing as much as 2,000 barrels a day.

The average retail price of gasoline is only 44% higher than prewar, even with higher road taxes in all provinces.

Reserves have increased 23-fold in the past six years. Canadian fields now supply all the prairies and part of B.C. and Ontario.

About 750 companies in which the public has an investment interest, as well as several hundred private firms and partnerships. And this doesn't include the thousands of privately operated service stations and other retail and wholesale outlets for oil products.

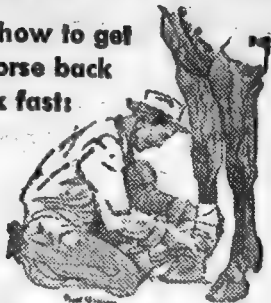
\$56 millions. About 4,500 Canadian companies sold Imperial supplies ranging from heavy steel plates to paper clips.

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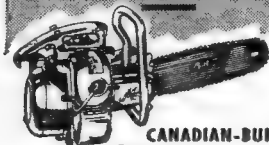
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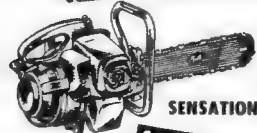
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THE ROYAL BANK OF CANADA

B.C. farmers are worried by threat of foreign disease

By TOM LEACH

THE past summer was unusually cloudy and cool. Crops grew exceptionally well despite climatic conditions. But the lack of sunshine told on people. Grumbings were heard from holidayers and from farmers alike. It may have been the weather that induced a recent discussion I had with a few agriculturists about livestock disease.

There are a number of disease conditions which afflict our poultry and livestock, but our concern on this occasion was with several of the more serious troubles. They were the virus and other diseases which exist in parts of the world and have not occurred in Canada.

One of the group was satisfied that our present system of checking incoming shipments of livestock is adequate but it was quickly pointed out that foot-and-mouth disease slipped by and became established in a Saskatchewan herd. Before it could be wiped out the disease caused a tremendous amount of damage.

Like the predator, it sneaked through the official barricades, travelled hundreds of miles across the country and lived in the most unsuspecting spot for several months before its presence was discovered.

There is no telling when the same virus might evade the authorities again but the realization of that possibility has provoked more attention to the regulations which are meant to keep this and other troubles like it away from our farms.

Newcastle Turmoil

There was also a previous example of a virus disease slipping across the border into Canada. On that occasion it took a more direct route and travelled the few miles from the State of Washington to the lower mainland of B.C. Many west coast poultry farmers have a vivid recollection of the turmoil the poultry industry was thrown into when official announcements were made that Newcastle disease had invaded the province.

The immediate result of the outbreak was a series of embargoes which stopped the movement of chicks from B.C. to prairie points. The hatcheries and poultry breeders on the coast were placed on a trade island where anything could come in but nothing could be shipped out.

The antagonistic attitude of B.C. farm organizations toward the movement of livestock when the foot-and-mouth trouble hit the prairies may be attributed, in part, to those embargoes on poultry shipments. That idea roused further debate among

the group who agreed that often faulty steps are taken to avoid tackling a serious problem.

We have reasonable assurance that the foot-and-mouth epidemic is wiped out. We also have vaccine which provides good protection against Newcastle disease. Then this appears a favorable time to assess these problems. They are still fresh in our mind. The cost of both outbreaks has not yet nor may never be paid in full because of the loss of breeder flocks and foundation herds, yet they are far enough removed so that sensible thinking can be applied to future action should it be required.

There is no telling when the health authorities responsible for the well-being of our livestock and poultry might be faced with other serious diseases. There are many of them in the world which have not yet invaded Canada.

One of the most formidable to come to our attention in recent months is the one known as vesicular exanthema. It is a close cousin to Foot-and-Mouth disease, but is confined to hogs. It shows outwardly as blisters on the feet of infected swine. The pigs go lame and lose weight rapidly resulting in serious loss of value although mortality is seldom high.

The fact that this disease spread through the United States so rapidly brought it forcibly to the attention of all U.S. veterinary inspectors. That may excuse the action taken last spring by the State of Washington when they thought a shipment of hogs from Edmonton was infected. The whole shipment of nearly 400 hogs was turned back at the border into Canada and held in quarantine until the true nature of the condition could be identified by Canadian authorities.

Which stayed in farming?

I left my dad, his farm, his plow
Because my calf became his cow.
I left my dad, 'twas wrong of course
Because my colt became his horse;
I left my dad to sow and reap
Because my lamb became his sheep;
I dropped my hoe and struck my fork
Because my pig became his pork.
The garden truck I had to grow
Was his to sell and mine to hoe.

With dad and me it's half and half
The cow I own was once his calf;
No town for mine, I will not bolt
Because my horse was once his colt.
I'm going to stick right where I am
Because my sheep was once his lamb.
I'll stay with dad — he gets my vote
Because my hog was once his shoat.
A profit sharing company.

—Arkansas Service Bulletin.

Can't Guess

Many of the farmers and veterinarians were skeptical about the presence of the virus disease in those hogs. But when a disease of that nature is suspected there is no room for guessing. We, as well as the United States authorities, had to be satisfied that the trouble was or was not infectious.

The episode again, however, nearly brought about a crisis in interprovincial trade and it pointed to a definite need for some Canada-wide understanding on such matters before any further embargo orgies are inflicted by one province upon another.

It was fortunate that no one became panicky over the trouble uncovered at the export point in that shipment. The U.S. veterinary inspector at Blaine, Washington, simply asked that the shipment be returned to Canada because of his suspicions. A slight misinterpretation of his action could have raised a demand that the shipment be rushed out of B.C. at all costs.

Provincial authorities could have denied any responsibility for the shipment. More movement of the hogs would only spread the potential disease farther afield and the sensible solution prevailed. They were held at the nearest possible point.

Quick Action

The Health of Animals branch of the Canada Department of Agriculture worked so quickly on the case there was little time for individuals or farm organizations to realize that a serious disease might be in their backyard. It is a credit to the veterinarians of the federal department that the entire shipment of hogs was quarantined, put under 24-hour R.C.M.P. guard, and examination of all individual hogs completed within two days.

Then they brought out their needles and inoculated healthy animals with material from the hogs and waited and watched the stock closely during the incubation period of the suspected disease.

The work was accomplished efficiently but meanwhile rumors began to fly. Officials received phone calls from packers and shippers at Edmonton and Vancouver because there was confusion over the regulations respecting shipments of export hogs.

This was due partly to the fact that some statements were issued by animal health officials in Washington, D.C., and also by authorities in Olympia, the capital of the State of Washington. But to make the story even more conflicting the rumor was also going around that B.C. had imposed embargoes.

The story had no foundation, but it made the hair stand straight up on the necks of some

people. They cooled down perceptibly as soon as they found no truth in it and that hogs could continue to move normally to Canadian markets.

However, they agreed it was time for some definite authority to be established to take control under such circumstances. It could prevent trade being upset more than necessary when and if another outbreak of a serious disease appeared in our livestock.

What would happen tomorrow if foot-and-mouth disease should be uncovered in B.C., Alberta or Saskatchewan? Who would be the first to impose shipping restrictions on the other province? That is hard to answer and explains the need for some definite understanding among all Canadian provinces.

It may have been the sunless skies of last summer that induced the morbid thoughts of livestock diseases and what could happen to our industry again should an outbreak of vesicular exanthema occur in hogs, or if pleuro-pneumonia hit our cattle or if rinderpest reared its ugly head. But, if those clouds are followed by the sunshine of a good, workable plan among the provinces to ensure almost normal movement of livestock to market then it will seem like a good summer after all.

Education pays off

URGING all Saskatchewan young people to return to school rather than be misled by short-term job opportunities, Labor Minister C. C. Williams points out that in many cases high school graduates earn as much as 25 years as "eighth graders" do at 45.

"By not finishing their education now, they jeopardize future earnings and advancement," Mr. Williams said in a press statement.

Text of the Labor Minister's statement follows:

"While not generally realized, every year of schooling increases adult income and the 1950 (U.S.) census shows that male High School graduates 25 years of age and over averaged \$572.00 more in 1949 than VIII Grade graduates; women, \$675 more. High school graduates made almost as much at 25 as the VIII-graders make at the age of 45. There are always exceptions of course.

"The good wages of today, which provide sudden spending money, are traps in many cases, and young people should forego the temporary pleasures they bring — look ahead — and return to school. By not finishing their education now, they jeopardize future earnings and advancement. Canada needs well-trained and informed citizens."

RAIN OR SHINE



*...there's one thing
you can depend on...:
year after year.*

No one knows better than a farmer about the ups and downs he has to face in making a living. Many things that affect him are unpredictable and uncontrollable.

But there is *one* thing that is controllable and predictable . . . something that will help meet other problems with assurance—that is Canada Savings Bonds.

CANADA SAVINGS BONDS.

have instant cashability at any bank at any time!

always worth 100 cents on the dollar!

better than cash — pay 3¾% interest per year for 12 years!



There is no uncertainty about these features of Canada's finest security. When you put reserve capital or savings into Canada Savings Bonds you know that they can be cashed for full face value plus interest at a moment's notice. You know you have one thing on which you can count.

CANADA SAVINGS BONDS

available starting Oct. 19th—

for cash—or in instalments—in denominations of \$50, \$100, \$500, \$1,000, \$5,000. Your investment dealer or bank manager will make all arrangements for you. Have a talk with him today.

CS-53-7 F

HOW cattle graze has been the subject of many cowboy controversies, and is always worth some discussion when cattlemen meet.

The mouth of a cow has a cutting swath of only about two and a half inches. Yet she can harvest as much as 150 pounds of green grass per day with time out for cud chewing, resting, watering, salting and other miscellaneous activities of any normal cow.

Cattle use their sense of smell in selecting and grazing the forage they desire. They prefer succulent forage and this usually provides adequate proteins, carbohydrates and minerals.

Studies throughout this country and in other parts of the world give proof of the inherent ability of cattle to select nutritious forage if there is a chance. In one test in this country, for example, samples were taken both of the herbage actually eaten and of herbage in the same area which was not eaten. The average composition of the 35 pairs of samples showed that the forage eaten contained considerable more phosphorus, calcium and potash than the forage which was not eaten.

The mechanical processes involved in the grazing of forage are worth considering. Essentially, cattle pull the leaves and stems from a plant with their two jaws. Since cattle have no teeth in the front of the upper jaw, grass is pulled off rather than cut off. One row of eight cutting teeth in the lower jaw, when pressed against the muscular pad of the upper jaw, permits them to tear the leaves and stems from the plant. The tongue is in constant action during grazing, usually protruding rapidly first from one side of the mouth and then the other side.

The tongue whips around the choicest leaves and stems for collection prior to the bite, and

Things you didn't know before about how cattle graze

By J. W. TURELLE,

U.S. Soil Conservation Service, in Nebraska Farmer

is also used in the swallowing process. A cow moves her head from side to side as she moves forward, the neck being flexed in a 20 degree arc. On the average, a cow will take from 50 to 70 bites per minute, but on occasion if the grass is good and the cow is hungry, she will take as many as 90 bites per minute.

Cattle under normal conditions during a 24-hour period will graze eight hours, and chew the cud about eight hours. They do not ruminate while being trailed, worked or when sick.

There are many factors which tend to modify the grazing, ruminating and resting habits of cattle. For example, periods between rests on tall grass may be longer than on short grass, although the total time devoted to grazing in any one day may be the same for each range type. A three-year study by the University of Nebraska confirms this statement. The total grazing time per day in each location was the same, but each period of grazing in the hardlands was about half that in the sandhills. This was equally true of the resting period.

The condition of the range does not materially alter total time devoted to grazing. In other words, cattle generally do not graze much longer when the forage is deficient to compensate for the lack of grass. Grazing time per day is somewhat constant on ranges irrespective of range conditions.

The digestive tract of a cow may have more bearing on time spent in grazing than does pasture condition. A certain length of time must be devoted to

moisten it, if it is dry, and to form it into masses of suitable size to be swallowed. On being swallowed these food masses pass into the paunch, where they are softened and mixed thoroughly. The food then passes on to the second stomach.

When a ruminant "chews its cud," the mass of solid food, along with the liquid, is carried from the second stomach and the paunch into the gullet, where it is forced up to the mouth. Here the liquid portion is quickly swallowed, and the solid part is then thoroughly chewed, after which it is again swallowed. It passes first into the paunch, and then into the second stomach, from which it enters the third and fourth stomachs and finally continues on through the rest of the digestive tract.

Direction of wind is often a factor in the way cattle graze. There is a popular belief that cattle ordinarily graze with the wind in winter and into the wind in summer. This may not be true except in severe weather.

A knowledge of the way cattle graze on range land is essential for the application of range management and other conservation practices. Proper distribution of water and salt can be used as aids in distributing livestock over the range. Watering places too far apart cause cattle to spend too much time on areas where the forage is already short and where their "harvesters" cannot take in enough forage per day. Damage is done to the forage as well as to the

cow when the area near the water is grazed too hard while areas away from the water are not used enough.

Grazing of overused areas has been lightened on range areas by placing salt so that pastures may be evenly grazed. This is usually accomplished by placing the salt where grazing is needed to relieve over-utilized areas. Salt is placed adjacent to watering places much too often. It is sometimes assumed that cattle must drink soon after licking salt. Consequently, according to this belief, the salt is placed near the water to prevent the cattle from losing flesh by excessive trailing. However, investigations show that such reasoning may be erroneous. The way cattle graze indicates that cattle, like people, may prefer salt with their food instead of with their water. In one study the interval between salt licking and drinking was usually seven hours even though the cattle could easily have walked from water to salt in 20 minutes.

Studies with both Angus and Holstein cattle have shown that the amount of forage grazed depends directly on amount of forage per acre for grazing. For example, where the dry weight of forage available on an acre was 1,000 pounds, a cow grazed about 32 pounds dry weight of forage per day. When there was 500 pounds for grazing on an acre, a cow grazed about 20 pounds per day. And, when the dry weight of forage was 250 pounds per acre, a cow grazed only 10 pounds dry weight per day.

"Destroy your cities and in a year they will be rebuilt; but destroy your agriculture and grass will grow on the streets of your cities in a year." — Sir Horace Plunkett, noted organizer of farm producers' co-operatives.

I WAS the first person to start plow-less farming in this district.

Around thirty years ago, I won the reputation of being the poorest farmer in the district. Just a scratch farmer.

Now, there is something wrong with your head if you don't trash farm, and there is a scramble between universities, etc., to tell you to trash farm.

After 30 years of experience with trash farming and having cropped about 16,000 acres in the driest part of the west, I'll say it has its advantages, but some are over emphasized. However, for soil drifting, it's no doubt the best for the dry belts. After so many years of experience, I can truthfully say that the land should be plowed sometimes.

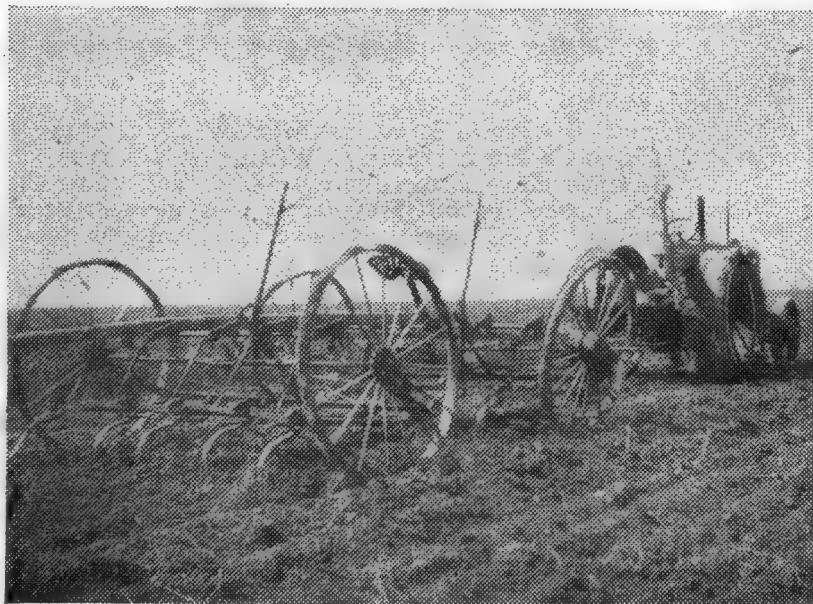
I have used a variety of implements, but I have gone back to my first spring-tooth cultivator for levelling the land.

The jumping, vibrating action of these gangs makes them tops

Plowless farming and make-shift equipment

By EMIL LORENTSON, Bindloss, Alberta

The Home-made Double-hitch



for levelling and bring the trash to the top and still have trash anchored without breaking it up.

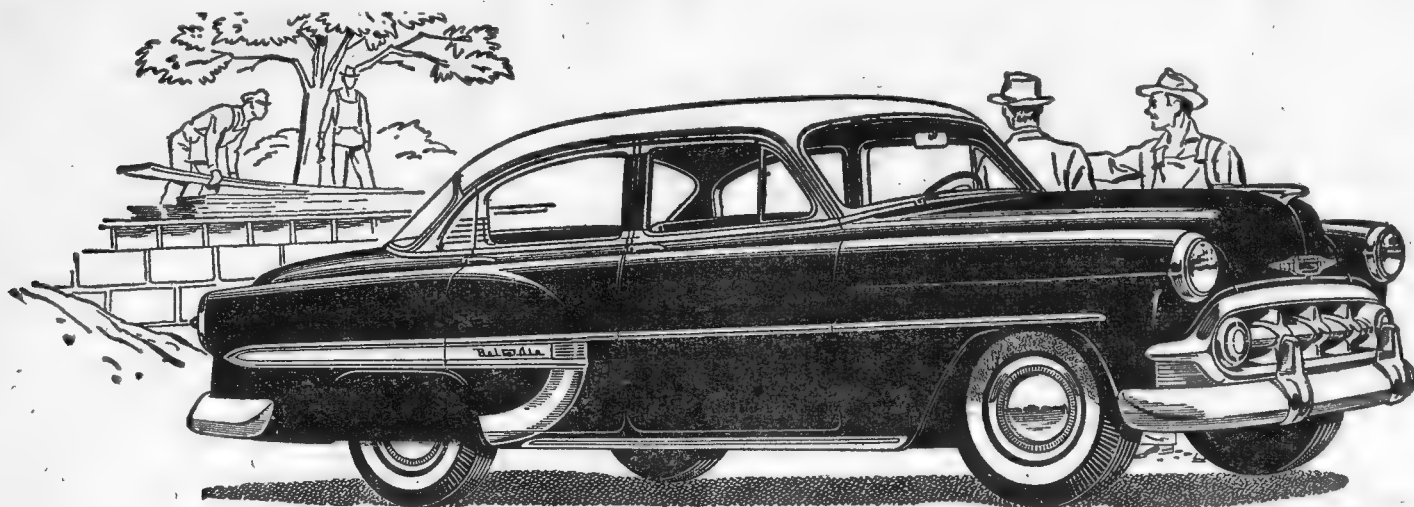
They were a little troublesome to plug up, so one day at a sale I got a fairly good one for \$2.50, so tied one behind the other and use 20 teeth on the two instead of 17 teeth on one.

Now I can sing right along in quite heavy trash without plugging. Usually there is much more trash than where this picture was taken.

You may note the wheels list some. That is because the axel is about to break for the fourth time from wear. The bearings were a little weak to start with, so when they wore out I just bolted on a piece of 6x6 to each side of the wheel and its far better than the iron bearings.

I spliced in a piece of shaft to the axel and let it stick out each way so when they get worn too much or break I just move the shaft end and bearing is O.K.

• This advertisement is designed to give you, as a prospective buyer, detailed and helpful information. We'd be happy to have your comments about this type of advertising. Just drop a line to the Advertising Department, General Motors Products of Canada, Oshawa, Ont.



This is the 1953 Chevrolet Bel Air 4-Door Sedan. It's one of 16 Chevrolet models in 3 series, which add up to the widest choice in the low-price field. A General Motors Value.

Some Chevrolet advantages worth considering when you're ready to choose a car . . .

Next to a new house, a car is probably your most important purchase. Here are some facts to help you make up your mind about which make to buy.

Isn't it a great day — the day you take delivery of a new car? You drive home cautiously and proudly, inhaling that wonderful new car aroma. Then you park out in front, while your friends and neighbors gather round to talk over your choice with you.

Naturally, you want that feeling of pride and satisfaction to last. So it's worthwhile to weigh all factors carefully before you buy. Let's consider the important reasons why people choose one make over another and see how Chevrolet stands in those respects.

Styling You Can Stay Proud Of

Styling of course, is a matter of personal taste. Because we think Chevrolet is the best-looking car in its field, doesn't necessarily mean you'll think so, too. But we can tell you that the majority of our showroom visitors prefer Chevrolet styling and compare its appearance most favorably with cars costing a great deal more.

And you might consider this: Chevrolet styling is the newest in its field. It's the kind of styling that stays new, too. For it is based, not on temporary fads or extremes, but on the fundamentals of good, clean, modern design.

The One Automobile Body Almost Everybody Knows

It's not really surprising that so many people prefer Chevrolet's appearance. For Chevrolet is the lowest-priced, full size car in its field with Body by Fisher. And Fisher, as you know, is the only automobile body manufacturer with a worldwide reputation for styling, craftsmanship and quality.

Many of Canada's highest-priced cars feature Body by Fisher. Because of quantity purchases of materials and greater production, Fisher can—and does—build extra quality into Chevrolet body and interiors.

The Many Benefits of High-Compression Power

When you drive a new Chevrolet (and we hope you'll do that soon), you'll notice these things: faster acceleration from a standing start; greater passing ability in traffic and on the highway; the new ease with which you climb steep hills.

These are just some of the benefits of Chevrolet's new high-compression power. In gearshift models, there is an entirely new 108-h.p. "Thrift-King" engine with a 7.1 to 1 compression ratio.* Teamed with the new Powerglide automatic transmission there is also an entirely new 115-h.p. "Blue-Flame" engine with an extra high compression ratio of 7.5 to 1.

A Great Gain in Gasoline Economy

Along with remarkable new performance, Chevrolet's advanced engines give you far greater gasoline mileage. In fact, this year marks the most important gain in economy in Chevrolet history. And that includes substantial savings on over-all upkeep, as well as on gasoline.

New Getaway in the New Powerglide*

Chevrolet brought you the first automatic transmission in its field. And now Chevrolet brings you the newest and most advanced one. The new Powerglide automatically drops into "Low" range for starting and for passing in city traffic. Then, as you glide along, it slips smoothly and almost imperceptibly into cruising range. The results are much faster and more positive acceleration, and much lower fuel consumption.

One of the things we're particularly anxious for you to try out is the performance and driving ease of this new Powerglide.

The First Power Steering in a Low-Priced Car

Chevrolet offers you the extra ease and convenience of Power Steering, optional at extra cost. With it, you can spin the wheel with the strength of one finger. You can seesaw in and out of tight parking places without the slightest strain. You get an additional cushion against road shocks and jars.

A Smoother and a Safer Ride

Comfort's a big consideration to almost every buyer. And almost every car claims to be exceptionally com-

fortable. Well, here are some facts bearing on comfort that you can judge for yourself.

To begin with, Chevrolet has ample weight to give a good, road-hugging ride. It isn't just weight that's been added indiscriminately, it's weight that comes from Chevrolet's extra strength, weight that means extra protection and safety because it's been utilized in strengthening body and frame.

Then, Chevrolet is the lowest priced car with Unitized Knee-Action. That means that the entire front suspension system is assembled and balanced as a separate unit. Only Chevrolet takes this extra step.

And as you go smoothly, so you stop smoothly. Chevrolet's new brakes with their 11-inch drums mean tremendous stopping power for emergencies — and easier, smoother stops at any time.

Chevrolet Is the Lowest-Priced Fine Car Line

Certainly, price is one of the most important factors of all. We're glad to be able to tell you that Chevrolet is the lowest-priced line in its field. In fact, it is Canada's lowest-priced full-size car.

Now, you might well ask, "How can Chevrolet offer me more and still cost less?" There is a simple, logical answer to that.

Remember that Chevrolet builds more cars than any other manufacturer. Chevrolet, along with General Motors, has greater facilities for research, for engineering and production. So, isn't it reasonable that these greater facilities bring manufacturing advantages and economies which Chevrolet can pass on to you in terms of higher quality at lower price?

An Endorsement Given No Other Car

Again this year, more people are buying Chevrolets than any other car. Obviously that wouldn't be true unless people liked Chevrolet better. Unless Chevrolet offered more things people want — more value.

So, when you're ready to choose your new car, wouldn't you agree that Chevrolet merits your careful consideration? Believe it or not, there are a number of things we want you to know about the new Chevrolet that we haven't had space for here!

We welcome your visit at any time, so that you can look the car over yourself and try it out on the road.

★ ★ ★

*Combination of 115-h.p. "Blue-Flame" engine and Powerglide automatic transmission optional on "Two-Ten" and Bel Air models at extra cost.

MORE PEOPLE BUY CHEVROLETS THAN ANY OTHER CAR

Goar's Fescue is tops for alkali lands in U.S.

By A. L. HAFENRICHTER, U. S. Soil Conservation Service

SOIL conservation "know how" plus the teamwork of a neighborly group of Los Banos, Calif. farmers may soon change thousands of acres of Central Valleys low-producing, alkali-ridden lands into money-making crops.

Central Valley landowners have waited long and hopefully for a solution to their alkali troubles. Today they see in recent successful tests with slick, "white spots" in Merced County a bright outlook for rehabilitation of a half million acres of wet land they had practically written off.

The good news coming out of the Los Banos Soil Conservation District where Soil Conservation Service nurserymen and technicians have been working with alkali lands, show that landowners now have nothing to fear from alkali. For alkali lands can be put in top working order today by taking a few simple steps in good land use.

The successful restoration of alkali land is another boost for the good land use way of farming and the soil conservation districts that are making the program go. And it shows what can be done with low-producing lands the country over, with a few well-tested soil and water conservation practices.

Reclamation Pays

The remedy that is working out so well on alkali lands in the Los Banos area is a reasonably simple process, and not as costly as you might think. It calls for providing adequate drainage, chiseling and leveling, seeding to alkali-resistant plants, like Goar's fescue and birdsfoot trefoil, irrigation and application of gypsum. You get best results, of course, by doing all of these things.

How well does it pay to treat alkali lands the conservation way? Dairymen like Sylvester Cardoza, John Roselli, Tony La Salvie and Antonia Lamoglia, who tried it, have a ready answer. They say it used to take 40 acres of alkali grass pasture to feed one cow. Under treatment, the same land turned out 40 times as much forage. It's better quality, too. An acre of improved alkali land grows enough forage to feed one cow per acre for a year.

Today's crop of farmers in California's Sacramento and San Joaquin valleys are just as troubled over alkali as their granddads. But there's a big change in the way atomic-age farmers tackle things. Instead of trying to face stumbling-blocks single-handed, they're turning more and more to their soil conservation district for help and counsel.

Farmer-directors of the Los Banos Soil Conservation District knew they had a whopping big job on their hands, when they took a good look at the alkali picture in '48. It was easy for them to pick the salty

pieces. Alkali lands were wet, flat and hard to drain. Soils were tight and heavy — hard for water and roots to penetrate. Overgrazing and seasonal flooding had just about run the water-loving native saltgrass and saccation cover out of the valley. Most of the 7 to 15 inches of rain falling in the semi-arid plain, settles in low-lying fields.

There are dozens of farm communities in the West with land fitting that description.

When the district's directors weren't able to solve the salt problem, they called on Harold Miller, manager, and his chief aid, Ozzie Hoglund, of the Pleasanton Nursery, and Leonard Leoni, head of the Los Banos headquarters of the Soil Conservation Service, for help. The directors now look back on their talks with the technicians as the biggest single step taken to rid farmlands of saltiness and lay the groundwork for higher and better quality yields. For it set in motion a chain of developments, scientific tests, field trials and research work that could speed the end of many an alkaline field.

Five acres of alkali grassland on Sylvester Cardoza's dairy farm was picked for the nursery site. And to get at the bottom of things, nurserymen and farmers assembled infor-

mation from many sources, sought the aid of numerous technicians.

Testing on the Los Banos alkali plots has included land levelling, use of different kinds and amounts of soil amendments and fertilizers, cover-cropping of various types, leaching to reduce alkali, and seeding of some 19 promising species of irrigated pasture plants and mixtures.

After three years of testing, Miller, Leoni, and Los Banos farmers believe they have found a good cure for alkali grasslands. It lies, they say, in a new strain of tall fescue (Goar's) which is well suited to alkali conditions and the hot Central Valley climate, plus a narrow-leaf strain of Lotus.

Farmers with salty acres now have a clear-cut plan for turning such lands into paying irrigated pasturage.

At the nursery plot scene today — near old alkali lands — good quality forage is being grown on heavy textured soil with a medium concentration of alkali.

Steps to Take

Here are the steps used to change the alkaline nursery site into permanent, lush forage:

The land was worked in the spring, before volunteer annuals produced seed, and levelled to a slight irrigation grade. Three tons of 90% gypsum were broadcast per acre and disked into the ground. Irrigation borders were then laid out at 20-foot intervals in the direction of the grade. Grass borders were built to provide basins about 20 by 100 feet. Next, the basins were filled with water and kept full for 10 days when they were drained and flushed and left to dry. The land was flushed and disked once again.

Nurserymen worked up a good seedbed in mid-October by floating the land and reconstructing borders. Then the land was left for the first fall

Master Farm Homestead



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rains to firm the soils. Before seeding, they scratched the soil with a spike-tooth harrow to loosen it.

Seed used in the planting is the key to the cure. A mix of ten pounds of Goar's tall fescue and five pounds of birdsfoot trefoil (Prostrate strain), diluted with rice hulls, was used.

The seed was drilled about one-half inch deep in the "V" furrow made by the disk. Drag links were used to fill furrows with loose soil. Rain, instead of irrigation water was used to bring up the stand. These planting steps produced a solid, even seeding in '49 and '50.

During the growing season,

stands were irrigated about twice monthly, using an application of .2 acre feet of water per acre at each irrigation.

First year hay yields from the seeding were about 5 tons per acre from three cuttings, or about 12 AUM's of grazing per acre. The next year the field

averaged 6 tons per acre, AUM's increased to 15.

Tall fescue hasn't been too popular in many farming sections of California. But records at the Los Banos outlying nursery, show no production losses from grazing alta fescue, often the case in common, irrigated pastures.

DISC, SEED and COVER ...in One Trip Through!



when you own

the **NEW**  **FLEXIBLE DISCOR**

HOW THE MM FLEXIBLE DISCOR FOLLOWS GROUND CONTOURS



Each gang is free to move up and down independently of the other gangs to follow ground contours. You do a uniform job, with even penetration over the full width of the cut.

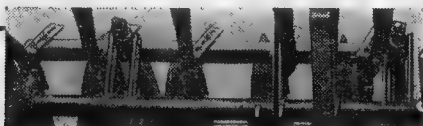
... RIDES OVER STONES



Stones or other obstructions are no problem. Only one gang rises to ride over a stone while the others stay in the ground. The gang construction means that a disc has to raise only one gang to ride over a stone ... not the entire Discor.

... DOES A UNIFORM JOB IN ANY SOIL

Pressure springs and lifting rods of the MM Discor extend above the lifting roll trunnions and have adjusting nuts. The nuts can be set down to limit penetration and still have spring pressure for hard spots.



Now, with the new Minneapolis-Moline Flexible Discor and famed Moline-Monitor seeding attachment, you can prepare, seed, and cover your grain land—in just one quick trip through the field. You save time, you cut costs, you do an accurate, uniform job that starts your crops right. The Discor is ideal for summer fallow work and other big discing jobs, too. Big 20-inch discs spaced 8 inches apart give you excellent trash clearance. With cross-rolled discs, self-lubricated bearings, and Uni-Matic hydraulic control, the Discor is built for long-life and low-cost operation on any field ... on any job.

SIMPLE ADJUSTMENT FOR CUTTING ANGLE AND WIDTH

Quick, easy hitch adjustments let you set the 4-gang Discor for any working angle from 20° to 40°. These adjustments let you vary drill spacing from 6 inches to 7½ inches, and width of cut from 10¼ feet to 12½ feet. Similar adjustments can be made with the 14-foot model.

EASY TRANSPORT WITH 9-FOOT CLEARANCE

It takes only minutes to adjust and lock the Discor for transport. Only 9 feet wide, the Discor passes easily through farm gates and is safe and convenient to transport on highways.

FAMED MOLINE MONITOR SEEDING ATTACHMENT

This all-steel Moline-Monitor seeding attachment for the Discor gives you all the advantages of seeding with one of the most thoroughly dependable and efficient seeding mechanisms ever developed. Heavy steel seed tubes, galvanized steel hoppers, automatic seeder engagement, and exclusive MM fluted feed are outstanding features.

SEE YOUR MM DEALER NOW, FOR COMPLETE PROFIT FACTS

MINNEAPOLIS-MOLINE

Regina, Sask. OF CANADA, LIMITED Winnipeg, Man.

THAT'S the type of question which British Columbia fruit growers often hear, and which isn't answered often enough.

Basically, the man on the fruit ranch in the Interior dry belt of British Columbia must have at least \$1.00 per box before he even begins to break even, for the obvious reason that all his costs have increased.

In fact, he averaged about \$1.15 last year and showed a tiny bit of profit, after taking a bad licking the previous year.

You will naturally ask, therefore, why apples on the market of Calgary, Edmonton, Regina and Winnipeg retail in the stores for anywhere from \$4.00 up.

Here is the breakdown based on an average cost. It cannot be applied to all varieties or all situations because, of course, the Okanagan fruit grower is no longer in complete control once the apples have been sold:

Packing Costs

By and large, it costs another \$1.10 for the necessary packing operations. They are graded, sized and packed uniformly in proper containers which are designed so that they can carry the fruit long distances with the minimum of bruising.

In this cost is included the price of the box, which is in the neighborhood of 45 cents.

Selling and other sundry costs to about a nickel a box, while freight charges, including icing or heating and loading, would run about 65 cents per

Why do B.C. apples cost so much today?

By J. R. ARMSTRONG

box to Calgary, and relatively higher to other farther removed Prairie points.

The basic freight charge to Calgary is now \$1.16 per cwt.; to Edmonton it's \$1.29 and to Regina and Winnipeg, \$1.87. The weight of a box of apples is approximately 50 pounds. To Calgary, therefore, the basic cost can be computed at approximately \$2.90.

The wholesaler who has bought by the carload has to store, service his retailers and accept any losses that may occur in a perishable commodity.

Finally, the retailer buys from the wholesaler, bags and sometimes prepackages to meet consumer requirements and also has to accept certain inescapable spoilage loss.

These distribution factors bring the price possibly from \$3.00 to \$4.25. Let's face it, however, that this is only a generalization, as many other factors could come into the picture to vary this price, especially on the up side.

Grade Spread

The spread between the grades varies with the variety and according to the demands each year, it should be explained.

There are only three grades produced by the Interior apple industry and they have been

standardized for many years. They are Extra Fancy, Fancy and Cee grades.

The main difference between Extras and Fancies is that of color. Cee grade generally has considerably less color and probably has some defects which do not present such a pleasing picture. However, the apple is still a highly desirable product.

Striking a general average once more, the price spread between Extras and Fancies runs about 30 cents per box and between Fancy and Cee grades, anywhere from 30 cents to 50 cents, depending on the volume available, in the various grades.

Like most other products, the price spread is controlled by the supply and demand. That's common in most lines which fluctuate on the wholesale and retail level.

People on the Prairies are not generally familiar with the varieties of apples available from B.C.

Best Varieties

For eating in its raw form, the McIntosh Red, Delicious, Jonathan, Newton, Winesap and Stayman are considered the best of the widely-offered commercial varieties.

Macs, Jonathans, Newton and Staymans are also good cookers, and in this class Wealthies

and Rome Beauty varieties should be added.

Wealthy, Jonathan and McIntosh are considered best for apple sauce after the green cookers have passed out of the picture, while the best baked apples can be obtained from the Rome Beauty, Winter Banana and Newtons.

Wealthies are harvested between August 20th and mid-September, and are generally available until the end of September, when the popular McIntosh takes over.

McIntosh harvesting begins in earnest in mid-September and the popular Red Mac can last until Christmas or the end of January if kept under proper conditions.

All other varieties are on the market and ready for immediate use from October 15th on. Delicious is considered at its prime at Christmas.

In order to keep apples in the best condition, they must have a cool, moist atmosphere, otherwise they will shrivel and deteriorate rapidly.

To sum it up, here are a few reasons—packing and handling costs have increased 149% between the years 1939 and 1952. Growing costs have increased 104% during the same period, and transportation costs have almost doubled. Presuming that other distribution costs have increased to the same extent, we now have the answer to our question.

SNOW seems simple to many of us, but it isn't — not if you get interested in it. The two kinds of people in Canada who appear to be most interested are the Eskimos and the scientists of the National Research Council.

Perhaps the earliest system for classifying different kinds of snow was evolved by the Eskimos, who built it into their language. They have about twenty different names for aspects of snow that are most important to them.

But snow is important to most of Canada, and Mr. G. J. Klein, of the Division of Mechanical Engineering of the National Research Council, has had a good deal to do with evolving the modern snow classification system used by scientists all over the colder parts of the world.

In addition to the stellar crystals so popular at Christmas time, the scientists recognize "solid precipitation" in the form of plates, combination of plates with or without short connecting columns, columns and combinations of columns, needles and combinations of needles, "spacial dendrites" which are not flat but have feathery branches sticking out at various angles, capped columns, irregular crystals, "graupel" or severely rimed crystals, sleet, and

One thing for sure snow is not simple

hail. In addition they recognize broken crystals, rimed crystals not sufficiently rimed to be classed as graupel, clusters of crystals, and wet or partially melted crystals.

The condition of the snow surface is another matter. It may be smooth, rain eroded, sun eroded, or wind eroded. It may have a sun or rain crust, a wind crust, a film crust, or be coated with surface hoar.

The average grain shape of deposited snow may be described as (a) stars or plates close to their original form;

(b) needles or columns close to their original form but matted into a feltlike structure;

(c) rounded grains of material such as graupel, sleet, or hail, or settled snow grains rounded by melting followed by re-freezing;

(d) settled snow grains with crystal facets formed in the absence of melting;

(e) depth hoar, generally hollow, cup-shaped crystals.

The difference between class "c" and class "d" is sometimes hard to see — until you hold the sample in direct sunlight. The facets of the "d" type crystals cause considerable sparkle.

One of the remarkable features of deposited snow is its extreme range of hardness, which varies more than 20,000-fold; this does not include the various forms of ice which are all much harder than the hardest snow.

Based on Mr. Klein's work, the Canadian Snow Survey has been conducted for the past six years by NRC's Associate Committee on Soil and Snow Mechanics, which has subcommittees to deal with snow and ice, soil mechanics, muskeg, and permafrost. The survey was carried out in close co-operation with the Meteorological Division of the Department of Transport, who did most of the observational work.

The observation stations included Aklavik, Northwest Territories; Churchill, Manitoba; Edmonton, Alberta; Gander, Newfoundland; Goose Bay, Labrador; Malton Airport, Ontario; Moosonee, Ontario; Old Glory Mountain, British Columbia; Ottawa, Ontario; Resolute, Northwest Territories; Whitehorse, Yukon Territory; and Winnipeg, Manitoba.

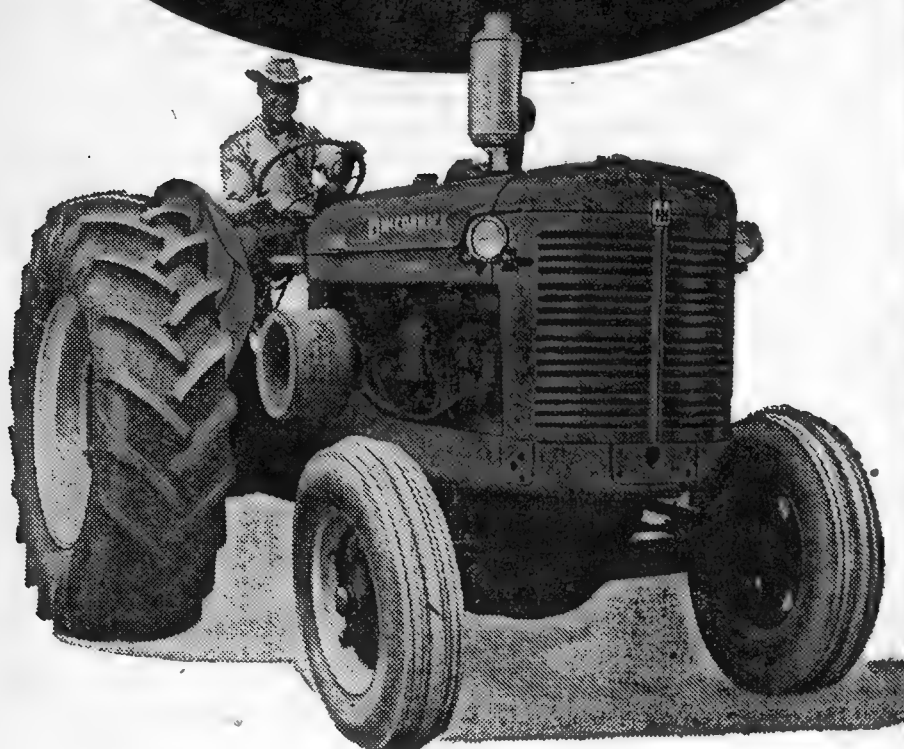
Two years ago, when suffi-

cient information had been gathered, these areas were reduced to six stations, at Gander, Ottawa, Moosonee, Churchill, Resolute, and Aklavik. These are to be continued indefinitely.

The snow classification methods used proved excellent for this survey and for other investigations involving snow; they produce neat, concise reports because of the international symbols used for each class.

Ah-put—Snow, general.
Ah-ki-lu-kak—Soft snow.
I-mu-gak—Snow water (water made from snow).
I-ya-go-vak-juak—Snow crystals.
Ka-nik—Falling snow.
Sa-ki-tu-vuk—Snow falling straight down.
Ku-ah-li-vuk—Snow freezing as it falls.
Pu-lak—Snow like salt—not cleaving.
Ma-sak—Wet snow.
Mang-uk-tuk—Snow that is getting soft.
Mau-yak—Soft, deep snow.
I-glu-vi-gak—Snow house.
I-gluk-sak—Snow for snow house.
Kag-mak-sak—Snow for banking house.
Ti-vi-gut—Snow drifts.
Piek-tuk—Drifting snow.
Ne-ta-go-vi-ak—Ground drift.
Ne-ta-ku-nak—Hail.
Ki-muk-vik—Uneven snow after drifts.
U-nik-ti-vi-yut—Holes or hollows made in snow by wind.
(A is pronounced long and I is pronounced as in weed, being used as an E.)

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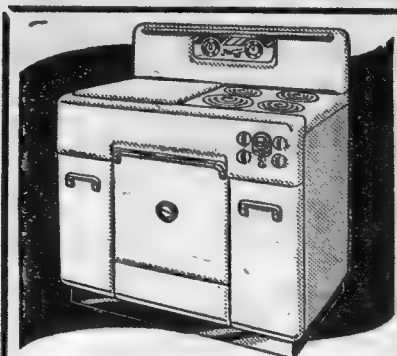
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"Bricklaying" baled hay will save you a lot of feed

(From the Windrow)

IN many areas farmers and ranchers face a problem in storing baled hay outside.

In New South Wales they found a way to protect these stacks of rich feed by "bricklaying" the bales.

Here are some of the recommendations. First, pick a site fairly level and dry. Next, estimate the number of bales to be stacked. When bales are comparatively few use a square stack — with more bales the rectangular stacks are easier to build.

The length of a rectangular stack is not too important but the width and height should not be too great. A stack less than 12 feet wide should not be more than six layers of bales high.

Larger stacks up to 15 to 18 feet wide may have up to 11 bales in the walls. If the stack is built higher there is a danger the weight of hay will cause bulging or slipping of the outside bales.

Bedding material such as loose hay or straw should be spread over the site to prevent the first layer of bales from being spoiled by contact with the ground. An extra layer of bedding or timber should be put around the edge of the stack up to about six inches in height. This extra layer keeps the outside wall of bales tilted slightly inward to add to the stability of the stack.

Bales in the first layer can be laid with gaps of about three inches between them. This gives greater stability by having the

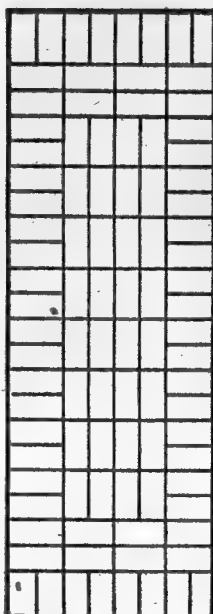
most surface area at the bottom. Bales should be placed with their tied side down. This helps keep the stack solid and the bales are easier to handle if the wire or twine is gripped from the top.

As a rule, every bale should be laid to cover a "joint" in the layer below. This "bonding" as in bricklaying can be the most important factor in successful stack building. Only in very small stacks is it possible to place every bale according to a pattern. But it is advisable to have some general design in mind in building stacks. No attempt should be made to keep the center of the stack high.

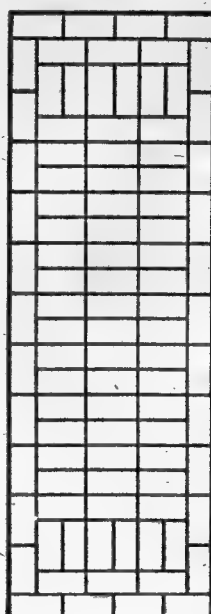
If you run into trouble keeping the corner bales solidly bonded, a tie can be used to strengthen them. A length of twine or baling wire is fastened to the two bales which form the corner and tied to a bale near the center of the stack.

Here's How to "Bricklay" Bales

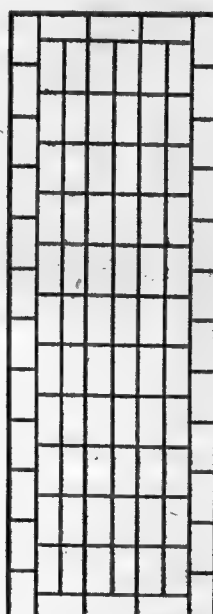
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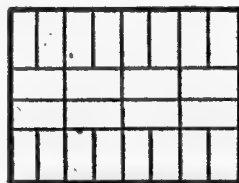


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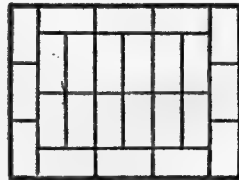


Here's how to build a large rectangular stack. Drawing No. 1 is the method for laying the 1st, 4th, 7th and 10th layers. Drawing No. 2 is for the 2nd, 5th and 8th layers. Drawing No. 3 is for the 3rd, 6th and 9th layers. Rectangular stacks are recommended when you have large quantities of baled hay.

1.



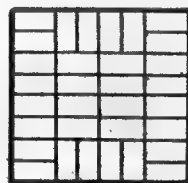
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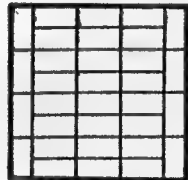
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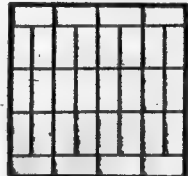
1.



2.



3.



This is the design for a small rectangular stack. No. 1 is for the 1st and 4th layers; No. 2 for the 2nd and 5th layers; and No. 3 for 3rd and 6th layers.

Here's the pattern for a small square stack. Drawing No. 1 shows the 1st and 4th layers; No. 2 the 2nd and 5th layers; and No. 3 the 3rd and 6th layers.

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Feed costs increase as cattle fatten

By F. WHITING,

Animal Nutritionist, Lethbridge Experimental Farm

MOST cattle feeders realize it costs less to put on 100 pounds of gain on a young animal than on an older one. The magnitude of this difference is such that feed-lot operators should consider it when deciding the age of cattle they are going to feed, and before selling. During the past winter, information was obtained at the Experimental Station, Lethbridge, on the amount of feed required to put on 100 pounds of gain on bull calves during each 100-pound range in weight. This information is shown in the following table:

Weight of Bulls lb.	Average Daily Gain lb.	Feed per 100 lb. gain		Cost
		Hay lb.	Grain lb.	
400 to 500	2.07	194	373	\$ 11.26
500 to 600	2.22	176	437	12.68
600 to 700	2.28	185	517	14.77
700 to 800	2.28	221	558	16.16
800 to 900	2.37	242	576	16.82
900 to 1000	2.36	259	695	19.97

In this study, hay was valued at \$20 per ton and grain at \$50 per ton when ground. The hay was an alfalfa and grass mixture, and the grain was a mixture of oats, barley, dried molasses beet pulp, and linseed oil-meal. The bulls were allowed free choice of hay and grain. Previous studies have shown that the feed requirements per 100 pounds of gain for bulls are not much different from those of steers.

Grain after grass needs fertilizer

FOR better grain crops after grass, break early and fertilize wisely. Those are the recommendations of C. H. Anderson, Assistant Superintendent at the Beaverlodge Experimental Station. Trials with wheat, oats and flax following brome or creeping red fescue have shown profitable response to both these practices.

Poor, uneven growth and very unthrifty grain crops often follow grass. Too little nitrogen seems to be the trouble. Grasses need large amounts of nitrogen, and after they have been down for three or four years this element is likely to be in short supply. But that's not all. The growing grain crop has a strong competitor for any nitrogen that might be left in the soil.

After breaking, sod does not rot of its own accord. The breaking up of organic matter to provide plant food is a complicated process involving bacteria and moulds that need nitrogen just as much as the crops do. Decomposition of this large amount of organic matter places such a heavy demand on the soil nitrogen that there is not

It is obvious from the data presented that feed costs increase the longer cattle are kept on feed. In deciding on the degree of finish to which cattle should be fed, the feeder must consider the increasing costs of putting on gain, any premium for well-finished cattle, a possible discount for heavy steers, and the market value of cattle in comparison to feed prices.

In many cases, it may be more profitable to feed more cattle to a medium degree of finish than to feed fewer cattle to a high degree

of finish, or it may be desirable to feed calves rather than yearlings or two-year-olds.

enough left over for a profitable crop.

To increase the supply, the workers at Beaverlodge have found ammonium nitrate very suitable. Used in the form of Nitraprills at the rate of 100 pounds per acre, the fertilizer is drilled in with the grain. Application of fertilizer in this way might well make the difference between near failure and paying crop.

It is not that available nitrogen is not being produced in the soil, Mr. Anderson says, but the demand so exceeds the supply at this time that the nitrate-making bacteria are unable to keep up with it. That is why he suggests breaking as soon as possible after the last seed crop has been removed.

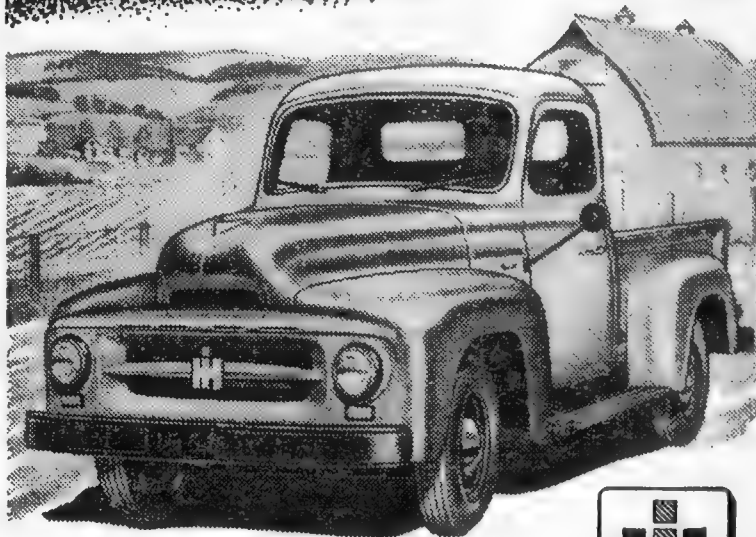
If the sod is broken in September some rotting occurs before freeze-up and the soil-life demand for nitrogen is likely to be less forceful when the crop is sown in the spring. There is even some indication that with early breaking as little as 50 pounds of fertilizer may be required, but there is still work to be done on this.

Mr. Anderson points out that this ammonium nitrate recommendation for grain crops applies only when grain follows grass. For grain following grain or grain on fallow, phosphorus as well as nitrogen is required. Ammonium phosphate 11-48-0 at 25 to 50 pounds per acre is usually indicated. Where heavy combine stubble increases the need for nitrogen, ammonium phosphate 16-20-0 at 50 to 60 pounds per acre is recommended.

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Fall preparation for second crop

THE problem of preparing land for growing second crop after summerfallow has been an experimental project at the Reclamation Station, Melita, for sixteen years.

During the past twelve years, there has been a consistent increase in yield on stubble land that is tilled in the autumn, followed by preseeding cultivation, compared with spring cultivation as a single treatment. This increase has amounted to an average of seven bushels of oats per acre.

In 1953, the increase in yield was eighteen bushels per acre. The presence of weeds such as Russian thistle, stinkweed, pigweed, ragweed, wild millet, and also volunteer grain has been decreased by fall cultivation.

In the light textured soil zone of southwestern Manitoba, it is necessary to maintain a trash cover for protection from wind erosion during the late fall and early spring. Heavy amounts of trash can be handled with reasonable satisfaction by using the oneway disc but fields covered by a light stubble should be tilled with a stiff-shanked cultivator or blade weeder as soon as possible after the crop is removed.

Complete destruction of crop residue by burning should be avoided for this increases the hazards of wind erosion. Applications of ammonium phosphate fertilizer, preferably the 16-20-0 formula, at seeding time will help to offset the depression in yield caused by working in heavy crop residue.

Calves not hurt by low feeding period

CALVES fed only enough to keep up their weight, with neither gain nor loss, can remain healthy for as long as 6 months and make economical gains later when they receive ample feed.

This has been indicated by trials in North Dakota and is backed up by an experiment carried on the past 3½ years by the U.S. animal husbandry experiment station in Beltsville, Md.

As one part of a much broader experiment, one of a pair of identical twin Angus steers was placed on a low-energy ration — only enough to maintain his body weight — while the other was fed a liberal ration that provided for 1½ pounds of gain daily. This feeding schedule was begun when the twins were 6 months old and continued for 6 months.

At the beginning of the period each twin weighed about 330 pounds. At the end of the 6 months, the twin on short rations weighed 340 pounds, while his well-fed brother weighed 618 pounds. The lighter twin was then placed on a liberal ration



and the other was allowed to continue on a similar ration. After another 7 months, the heavier twin had reached a slaughter weight of 1,000 pounds. His retarded twin weighed 830 pounds. It took only 70 days more for the lighter twin to reach the desired 1,000-pound slaughter weight.

Each of the twin calves needed the same total amount of feed to reach 1,000 pounds, even though one lived 70 days longer than the other.

Blasting stumps!

STUMPS can be tough. Every farmer knows there are times when a stump can be more stubborn than a mule and will, under certain conditions, scorn the best efforts of man, horse or mechanical equipment. When this happens it is time to consider blasting — under any conditions one of the quickest and cheapest ways of removing stumps.

Actual procedure for stump blasting should be determined by the size and condition of the stump and nature of the soil in which it is anchored, says J. E. Carson of the explosives division of Canadian Industries Limited. Usually, stumps can be removed cleanly by blasting alone but on occasion some pulling will be required for complete removal.

While preparation of the stump for blasting is not difficult, it should be done with extreme care, Mr. Carson warns. Loading must suit the nature of the roots and charges placed to break their hold on the soil. A diagonal hole should be punched with a crowbar or drilled with a soil auger until its bottom is a fair distance below and just beyond the centre of the stump. The explosives charge should be loaded right to the bottom of the hole, the cartridges being tamped in with a wooden rod. A broom handle is ideal.

Where a heavy charge is required, it will be necessary to first "spring" the hole by firing with a very small charge in order to provide a pocket of sufficient size to accommodate the larger charge.

For stump blasting Mr. Carson recommends the use of stumping powder of 20 per cent strength or "Blastol" of 60 per cent strength. If stumps are in dry ground cartridges should not be slit but loaded intact. "Blastol" cartridges, on the other hand, being water-resistant, may be split even when holes are wet provided charges are fired reasonably soon after

loading. All holes should be filled right to the collar with sand or earth before firing.

Taking care of stored grain

OBSERVATIONS made throughout Southern Alberta during the present harvest season indicate that large quantities of this year's grain crop are being stored on the ground in the fields. The agricultural engineering staff of the Lethbridge Experimental Station have been watching storage piles during the past years, and to them it is evident that many of these piles are not sufficiently well-formed to withstand the possible rain or snow that can be expected at any time.

It has been observed that open piles must have smooth sides and a smooth uniform peak or ridge. Many of the piles now in the fields would be improved if they were brushed with a broom, or otherwise smoothed down to fill in depressions. Piles that are not located for natural drainage can be given added protection by the use of a small drainage channel designed to lead water around and away from the pile.

Field storage piles utilizing snow fence or other types of retaining walls need to be checked to ensure that water or melting snow collect at the junction of the top of the fence or wall and the cone of grain inside the enclosure. Grain piles inside temporary enclosures are safer if filled to the point of overflowing, or if some form of waterproof covering is provided.

The possibility exists that some damp grain has been put into permanent storage buildings. Ventilation across the top of the bins is needed to carry away respired moisture arising out of the grain.

It is essential to check all grain for any signs of heating. Experimental evidence indicates that the moisture content of damp grain can be reduced only about one-half per cent by moving it from bin to bin several times with a grain loader.

It is likely that a large part of this year's bumper crop will remain on the farms for some time. The care of stored grain has become a must in to-day's farming operations.

Take care of the farm

IN the past four years the prairie provinces of Canada have produced about 4½

billion bushels of small grains, of which over 2 billion bushels was wheat. This is an amazing record of production, particularly when it is realized that there has been no great increase in acreage.

The present grain congestion in Canada is due directly to the output of these four record-breaking years. Both exports and domestic sales have been very good, ahead of anything achieved before, but not sufficient to take care of the surpluses.

The Canadian government farm policy does not provide for the enforcement of any grain acreage reduction. The only limitation is the quota system of marketing put into effect by the Canadian Wheat Board. Each grain producer is provided with a delivery permit book. The amount of grain he can deliver is based on his acreage under crop and in summerfallow. At the start of the marketing season the quota is usually small and increases are put into effect as the Board disposes of the grain. The quota this year is three bushels per acre on the total seeded and summerfallowed acreage but, unfortunately, in many instances, there is no room in local elevators.

Writing in the Lethbridge Herald's farm page recently, an agricultural authority suggests that farmers in the prairie provinces should consider the proposal of voluntarily limiting their seeded acreage next season. He suggests that the weed menace is growing steadily and that farms are being damaged by wind and water erosion. A more thorough cultivation and a program of regrassing, that writer suggests, would put the farm in better shape and increase its fertility.

—Wheat Pool Budget.

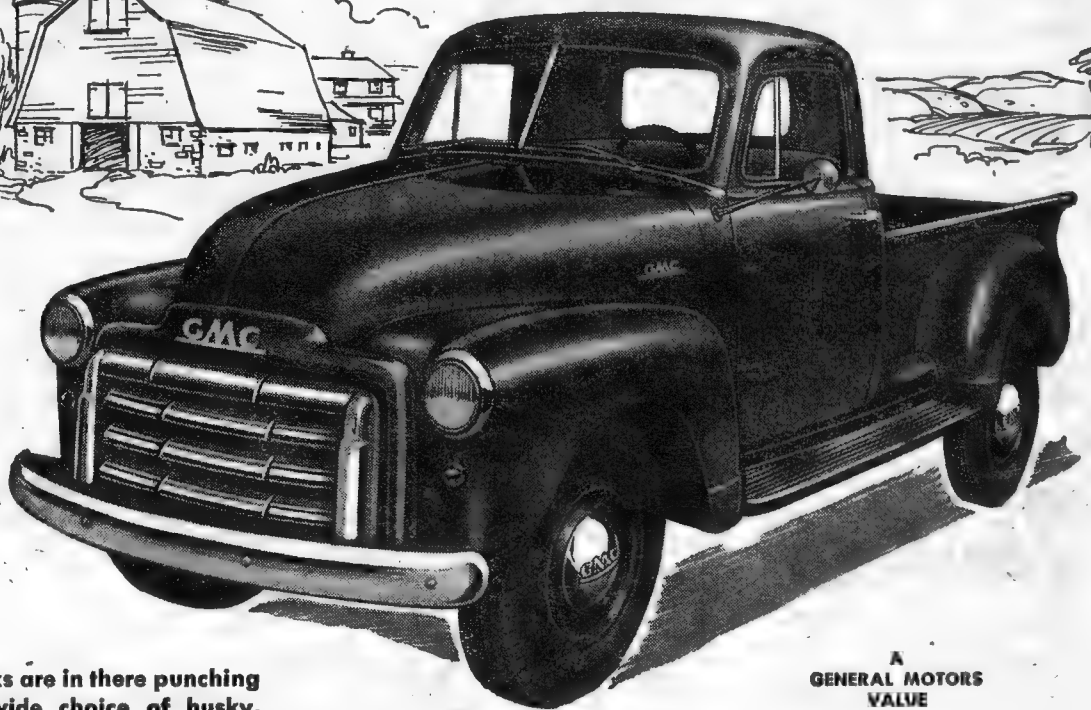
Fall seeding of forage crops

IN spite of a heavy hay crop over most of Southern Alberta, we should not overlook the possibility of seeding down some land to hay or pasture. Forage crops have uses in addition to hay or pasture — for the control of weeds, for the reclamation of waste areas, and for the restoration of organic matter and fertility to the soil.

There are a few broad generalizations which might be made in respect to seeding forage crops. First, legumes in general should be sown in the spring after the frost danger has passed, or in late summer from August 1st to August 15th. Grasses can be grown in the spring, the early fall (from August 15th to September 15th), and just before freeze-up. Second, shallow seeding is essential — the optional depth of seeding most grasses and legumes is half an inch. Third, the seed should be covered. The best way to obtain seed cover-



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The fact and the fiction of home freezer claims

By THE CANADIAN ASSOCIATION OF CONSUMERS

1. Is it an advantage to invest in a home freezer food deal whereby food is supplied to stock a unit on purchase of a deep freezer?

2. Will the savings made under a plan pay for the freezer in two years' time?

3. What types of food keep well under freezing?

The Consumer Research Department of the Canadian Association of Consumers consulted numerous authorities, one of whom examined four home freezer food plans operating in Ontario and also studied analyses of several U.S.A. Freezer Food plans. The savings (?) promised on such deals, it is established, will never pay for the freezer. Consumers are advised that salesmen—some of them unfortunately are rather exuberant in the promises they make—who sell a home freezer food plan on the basis that a family can thereby reduce its food bill, are actually misrepresenting their product.

Home freezer food plans are basically sound. They do raise the living standard of many people and also benefit the frozen food industry. But consumers should consider a few pertinent facts before signing up:

1. To own a home freezer unit will cost you more to live—not less—because you have to pay for the home freezer and its operating costs.

2. The advantage of alleged

"wholesale" prices for frozen foods is usually meaningless because:

a. the price reductions are often slight;

b. interest is added to the price on a freezer food deal, except for cash sales.

c. many of our foods are much more economically handled in other than frozen form.

Nevertheless, purchasers of a home freezer unit get value for their money because they can enjoy a more varied diet, greater convenience and help in planning and serving meals, and probably better nutrition. Next to raw products, frozen foods have the highest quality rating compared to the same food processed by other methods. Most vitamins are not seriously damaged by freezing. In particular, Vitamin C is retained to a large degree. Moreover, money can often be saved if meat, vegetables, fruit, etc., are bought when prices are down, or if you grow your own crop.

The proper variety of fruit and vegetable for freezing is very important. Choose those kinds which are suitable. This information is available in booklets which may be obtained from the various provincial Departments of Agriculture.

Get Answers

If you decide to participate in a freezer food plan, be sure to check the quality of the food that the freezer company is go-

ing to put into your unit. In the case of meat particularly, ask the salesman whether it has been obtained from a reputable packing house. Ascertain if the source of the meat has been inspected by local health authorities, if it does not come from a packing house. In respect to vegetables, can he guarantee that vegetables have been adequately blanched? If they are not, certain vegetables turn brown when stored in freezer.

Don't imagine for a moment that on most freezer deals your unit will be stocked with only the choicest cuts of meat. Inevitably there is likely to be a certain amount of wastage involved if the plan provides a side of meat. If you are skilled at meat cutting, as many farm people are, it may most you less if you buy meat wholesale and cut and package it yourself for storing in a freezer.

If you prefer only certain cuts or have limited freezer space, you may find it more economical to take advantage of week-end specials or other favorable buys at retail stores.

Remember, however, most pre-packaged meat in retail stores is not wrapped for frozen storage, so you may have to unpack and re-wrap it for freezing. When cutting and packaging meat yourself, sanitation is all important. This means clean hands, clean operating space, tools and wrappings. Meat, going into a freezer, must not carry a load of bacteria that may increase rapidly when the meat is taken out and thawed. Bear in mind that freezing does not kill bacteria that can cause spoilage.

Sask. cow produces four good calves

By PETE WENGER, Weyburn, Sask.

A GOOD grade Hereford cow year-old cow that was due to calve in the Creelman district, some 45 miles northeast of Weyburn, gave birth to quadruplet bull calves recently, sending livestock men to dig into the record books.

Nat Woiton, a mixed farmer since 1936, was out working on the morning of Sept. 1, when he decided to check up on his four-

year-old cow that was due to calve. Entering the pasture, Woiton was astounded, to say the least, when he discovered that the cow had given birth to no less than four bull calves. As Farmer Woiton approached, all four calves were up on their feet and having a feed.

News travels fast, even in the

country, and it wasn't long till the Woiton farm was flooded with curious onlookers, livestockmen, and agriculturists. Some of them, no doubt, were from Missouri and had come to see for themselves.

Farmer Woiton showed the visitors that his prize cow had been kept in a small fenced-in pasture with two other cows, one of which had calved in April and the other was due to calve in January.

Ten days after birth, the calves were weighed by an agriculturist, A. M. Crowle of Weyburn. He reported the calves as weighing between 60 and 70 pounds each. At the time of birth, the calves probably weighed between 45 and 55 pounds each.

Livestockmen and agriculturists alike started digging into the record books to try and learn whether such a rarity had ever before occurred in Saskatchewan. While nothing could be found immediately, the experts felt that the quadruplet calves were indeed a real rarity, especially since they concerned the beef type of cattle.

All four calves are healthy and as frisky as any calf can be.



MOST IMPORTANT: — In wrapping meat for freezing, be sure to have a good contact between the surface of the meat and the wrapper: airspaces between the meat and the wrapper promote deterioration.

How Long to Store Meat: Beef, veal, lamb particularly keep well in the freezer for 9 to 12 months, if properly wrapped and stored at 0 degrees F. or lower. Fresh pork products are best if kept in the freezer not more than six months.

Pork sausage and cured pork products, particularly sliced bacon, are the least satisfactory meats for freezing. These should not be kept in the freezer longer than three months. The salt, it has been discovered, hastens development of rancidity of the fat and makes the meat less palatable.

Aging of Meat Before Freezing: Beef or lamb should be aged from 10 - 14 days before freezing. Veal and pork should be frozen as soon as possible after slaughter, certainly within a week.

If the Power or the Equipment Breaks Down? The danger of loss from such an emergency is slight. Usually a loaded freezer can survive even a two-day power break before completely thawing.

Farm families tote many tons of water

FARM families without a complete water and sewage system carry more tons of water in and out their houses each year, as an average, than the tonnage of hay the farmer puts up. The big advantage with haying is that most farmers use machinery to take a lot of the labor out of haying while less than 25 per cent of the farm families have complete water and sewage disposal systems.

Arthur H. Schulz, NDAC Extension Service agricultural engineer, made these comments while discussing the need for complete water and sewage installation on more North Dakota farms.

He says that a family that only uses 50 gallons of water per day will carry about 75 tons of water into the house per year. If the family does not have a sewage disposal system, its members will carry out of the house at least two-thirds of this water, or another 50 tons per year. This is a total of about 125 tons of water carried per year.

Farm people walk about 125 to 175 miles per year carrying water in and out of their houses, according to studies made in North Dakota and duplicated in other states, Schulz adds. These figures are for farms where the well is only 100 feet from the house.

All of these figures emphasize the fact that there is no greater convenience and labor-saver on any farm than a complete water and sewage system, the NADC farm engineer concludes.



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AND 40 AND HAVE GRADE 8 EDUCATION OR BETTER

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Sask. and the C.C.F.

To the Editor:

IN the lead editorial in your September issue, I see that you are again trying to convince your readers that a vote for any other than your pet Liberal party is a vote wasted, or worse, and this is so especially when one votes for what you term one of the "splinter parties". Apparently you have been able to convince yourself at least that the C.C.F. is on the way out. Have you ever heard of the Labor and Socialist parties of Britain? New Zealand? Australia? Sweden? Norway? Denmark?

Were they not at one time all "splinter groups"? Did those people who worked and voted for these new parties lose their votes? Or, did they there do as we in the C.C.F. here are doing, build, step by step, a strong grass roots people's movement that finally became the government of their respective countries?

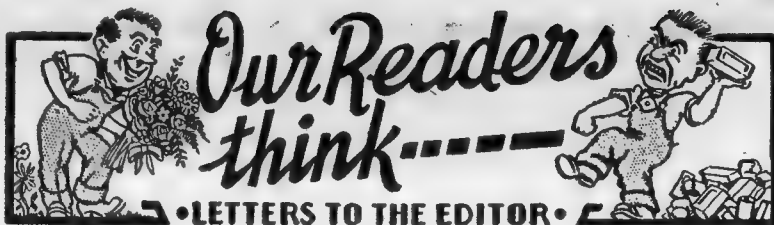
You say, "It was said that the switch from Liberal to C.C.F. in Saskatchewan was a protest against the refusal of the government to proceed with the South Saskatchewan river project," (what a nice way to put it).

Who said so?

The above failure to do what had been promised time and again was just another one of many such, and as a result of their many broken promises Saskatchewan electors have finally lost confidence in the Liberal party.

No, Mr. Editor, the Saskatchewan vote was not a protest vote. We voted for a better deal for the common people and the farmer in particular, and we know that no party which gets its campaign funds from the powerful corporations who fatten at our expense (as does the Liberal party) will ever be allowed by their backers to provide for this.

Re your 2nd editorial on the same



page entitled "No Good All Around", obviously, you have never had anything to do with farm organization or you wouldn't make such statements.

Having spent over 40 years helping to build and maintain various farm organizations, I am prepared to state as my definite opinion that the voluntary requisition is essential to the success of the F.U., and that a strong F.U. is a must in an economy such as ours where most other groups are effectively organized.

M. H. Feeley.

Preeceville, Sask.

Crop insurance in U.S. and Canada

To the Editor:

IT was with interest that I read your recent September edition in which Newt Gilbert tells the facts about the U.S. Crop Insurance programme.

I have farmed in Alberta and know a few of the problems confronting the farmer there. I agree with Mr. Gilbert that the P.F.F.A. is entirely inadequate. I farmed north of Lacombe, a short ways, and in that area we are not too troubled with drought; however, hail and frost does play an important role in the destruction of many acres of otherwise fine crops in this area almost every year. Few farmer have ever received any help from the P.F.F.A. However, they donate as much or more than those who farm in a dry country. Therefore, the plan although helpful is full of holes and is entirely unfair.

The Federal All Crop Corp. as it is known here in the States is a better plan all right, but there are a few things about it that everyone should know. (Things you would probably not hear from officials of this Corporation such as Mr. Mayberry is I take it.)

Since its inception the Federal All Crop Corporation has cost the U.S. government over 19 million dollars to operate besides its premium income. This can be done in a country that doesn't even try to balance their budget but for heaven's sake don't let that policy creep into Canada. Canada is the model of all nations at present in its financial status.

The premium, therefore, is apparently too low. Too low to cover the losses sustained under this plan. I have talked with several farmers here who have had it and they tell me their premium is quite high and they can hardly afford to carry it. Secondly, in areas where they have been prone to droughts, hail storms, etc., the Federal All Crop will not take any risks what ever, so this in turn leaves the farmers in these specific areas without protection. From this I gather they just are picking the areas best suited and even at that they still cannot keep within their premium income.

Another interesting item to take note of is that this is a Corporation operating in the U.S., but even though they have the advantages of corporations in their activities, they never paid any income tax. This is one of the few corporations operating in the States today that is so fortunate. Therefore, in comparison,

what could insurance companies cover in this line if they were tax free?

Last, but not least, is the misconception that you seem to have about this insurance. It does not replace hail insurance. The F.A.C.C. here recommends that farmers carry in addition to this protection, a hail policy. The person at the head of this organization in Washington, D.C., himself carries a hail insurance policy in addition to the protection he gets from the F.A.C.C. policy. He does this on his own farm in the east.

I am not in the far flung group that believes if you can't do anything else for an idea, then knock it; but I do believe that the farmers of Alberta who this will affect should know the full details of this plan.

I like your publication just fine, and believe you have a good staff with you. I read most of the paper through and like your idea of giving your readers a view on both sides of a problem.

Foster Rutledge.

Essex, Iowa.

No discipline any more

To the Editor:

AN anxious parent expresses my views exactly regarding this ultra modern system of education, as it is the ruination of our children. We parents get blamed for the lack of obedience in our children, but how can we hope to command respect and obedience from our children when they come home from school and tell us we are so dumb, because the teacher says our system is wrong and theirs is right. As far as I've been able to observe, there is no discipline in schools at all any more, and our grade five students can't spell or write, and don't know the multiplication tables. All they seem to learn in school now is how to dance, have dates, and tell parents how stupid and silly they are. Our principal's chief concern seemed to be to see that all the children had soup. In my opinion it will take a lot more than soup to straighten out our system of education, and it's high time something is done about it. So let's get busy, and let's hear from some more parents.

I am, too, an anxious parent.

Mrs. Alvin Ellis.

Breton, Alta.

Animal Pity

To the Editor:

IN one of the "Meditations at Twilight" essays, the author comments on the way animals pity one another. I find that this is very true, as I have seen this happen with fowl. One day, one of our smaller turkeys got one leg cut off by some unknown source. We bandaged it up as best as we could, but it could only hobble around slightly. Later in the evening as I was closing up the chicken coops, I came upon the injured turkey lying in the grass, but it was alone in company, for by it sat another little turkey with its wing held over the other protectively. The crippled turkey huddled under the wing as though his friend was a mother hen. Every night we would find the friend guarding him carefully.

Elsie Kolodinski.

Thorhild, Alberta.



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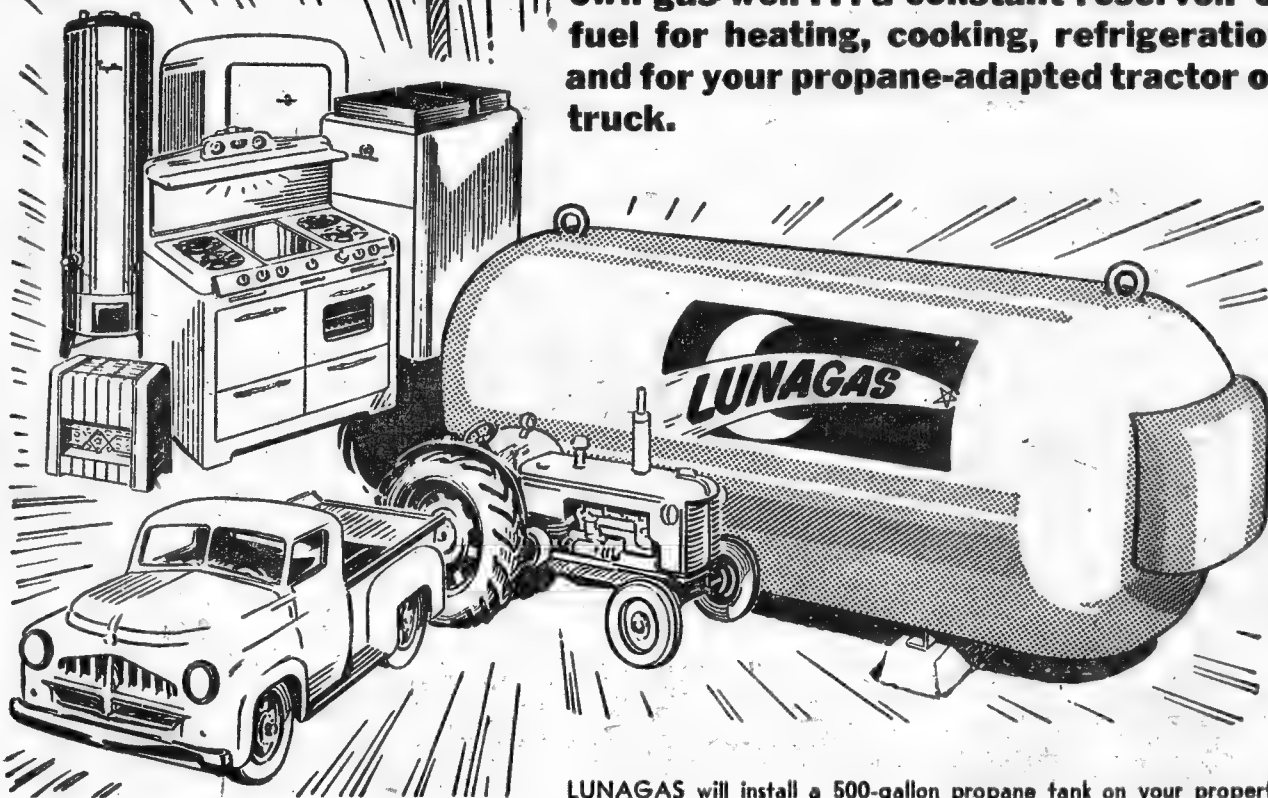
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EDMONTON CALGARY LETHBRIDGE SASKATOON

There are lots of shadows on Adenauer's victory

By BEN MALKIN

THE clear-cut election victory last month by Chancellor Adenauer's Christian Democratic party and the groups associated with it was remarkable because extremist parties, opposed to democratic government, were completely swamped. Both the Communists and the newly-organized Nazi parties failed to return any members to the German parliament.

This may be a reflection of growing German political maturity, and increasing adherence to parliamentary ways. That's how some observers interpreted the election. On the other hand, the result may also be attributed to the fact that unemployment in West Germany has

been declining in the past two years, and living standards have been going up.

Economic troubles, large-scale unemployment, and declining living standards might tell a different story as it has in Italy. In the meantime, there is reason for the West to have been gratified by the strong showing made by democratic parties in Germany.

Now What?

But gratification should not be unalloyed. Dr. Adenauer is a strong advocate of West Germany's participation in the European Defence Community, and may now be expected to push this policy through. Unfortunately, one of his first

policy statements after his return to office contained talk about the restoration of territory lost to Germany after the war. He spoke, as well, of the "liberation" of East Germany.

The troubling question is, would Chancellor Adenauer view German participation in a European army as a means for defending Europe and determining aggression, or would he consider it a way of dragging Western Europe into supporting West Germany's efforts to reunite with East Germany, and to re-annex the areas lost to Poland and Czechoslovakia?

The keystone of any West

German government's policy must be union with East Germany. The question is how. It can't be expected that the Russians will withdraw from East Germany because their conscience bothers them. They will withdraw only if forced to do so — which could bring on a war — or if given something in return that they want very badly. They have already stated their terms for withdrawal: a neutral Germany, not tied to the Western camp, governed in the beginning by a provisional regime representing all parties.

Fear of Germans

Russia, which has twice been invaded by Germany, still fears German rearmament. This fear is recognized as legitimate. Both Premier Churchill and President Eisenhower have acknowledged Russia's feeling of insecurity when faced with German rearmament. A neutralized Germany, with only sufficient arms for its internal security, would in this sense be preferable to a rearmed Western Germany as the dominant force in a European army.

But to obtain such a Germany on Russia's terms, the West would have to agree to an ap-

pointed German government (in which Communists would be represented far beyond their popular strength) and would undoubtedly have to guarantee the new borders of Poland and Czechoslovakia. And Chancellor Adenauer would have to agree to the present German frontiers, and to a partially demilitarized Germany.

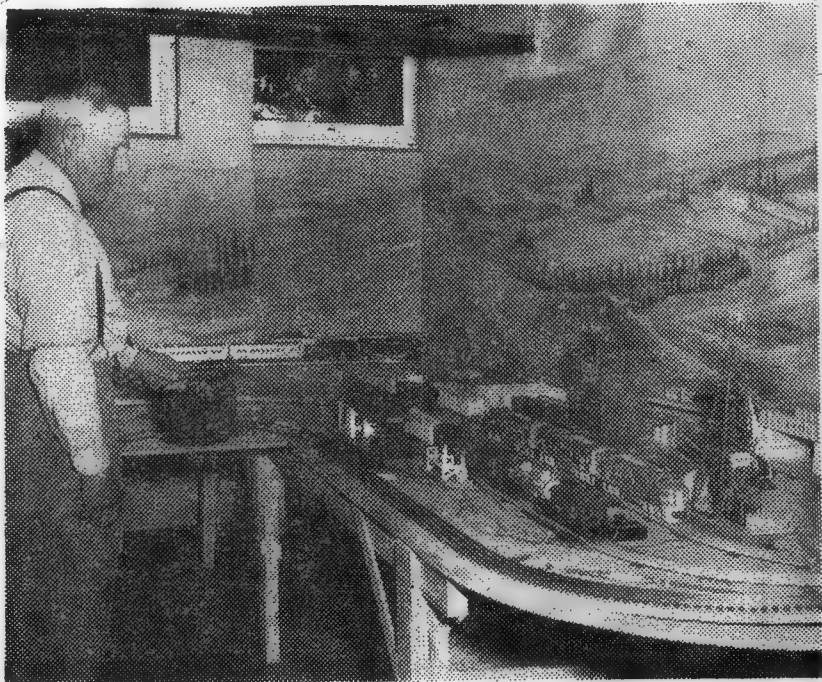
The West has merely said that free elections must be held to determine what kind of government would preside over a united Germany. This would no doubt eliminate the Communists from a voice in government. Possibly a compromise can be reached on this point. Moreover, Britain, at least, seems prepared to meet the demand for a guarantee of the new frontiers on the east, for Churchill has spoken of another pact, similar to that signed at Locarno before the war, which would assure Russia's security. Perhaps the West and Russia could strike a bargain on this point, too. But what of West Germany and Chancellor Adenauer's government?

Displaced Millions

Ten million people in West Germany, almost one-quarter of the republic's population, are refugees from territories such as Silesia and the Sudetenland, now lost to Germany. These represent a constant, heavy source of pressure on the West German government to recover the areas to the east. Apart from this, Germany has never been noted for its ability to write off territorial losses, and forget about them.

Chancellor Adenauer is almost certain to keep the issue alive, as any German leader would have to, to press for return of these territories, and to oppose plans for a neutralized Germany and a guarantee of

Master Farmer



Les Lohr, who began to build a 2,680-acre farm from a \$10 homestead 43 years ago, can find time now to pursue his hobbies. His favorite is this model train, built in the basement of his home. The background scene was painted by a Stettler artist. Mr. Lohr and his family won the east central honors in the Master Farm Family Awards for 1953.

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Polish and Czechoslovak borders. His best bet is to build a German army within the European Defense Community, and try to dominate the new European army.

German participation in the European Defence Community is not undesirable in itself, and could be one way of assuring that German rearmament is not used for strictly German purposes. But this assurance could only come if Germany does not, in fact, dominate the new European army with the 12 divisions which it proposes to contribute to it.

It is possible that such domination could be avoided if Britain participated in the EDC, but Britain, thus far, because of its needs to send forces abroad on Commonwealth defence duties, has been unable to do so. If Britain as well as France were to act as a counterweight to Germany in the EDC, Germany would be rearmed but in effect largely neutralized, for its voice would not be large enough to outweigh both Britain and France in formulating European army policy. Without Britain's participation, the dilemma remains: should Germany be allowed to rearm or not?

Grass for wet spots

MANY acres of normally productive land in Saskatchewan this year are bare, according to R. E. McKenzie, Director of the provincial Plant Industry Branch. The reason for this, he added, is that heavy spring rains resulted in the flooding of low areas, and this condition continued well beyond the final seeding dates.

The Branch Director pointed out that in those areas which flood for several weeks each spring under normal or near-normal conditions could be made to produce good crops through the seeding of reed canary grass for hay.

Reed canary grass withstands very long periods of flooding, and under flood conditions produces a heavy lush growth of high quality hay. An added advantage is that if flooding delays the harvest of reed canary, cutting can be done any time up to the first killing frost. The leaves remain green until frozen.

Mr. McKenzie said the rapidly increasing popularity of reed canary grass is due partially to a steady decline in the cost of seed. Under the current provincial forage crop program reed canary is listed at 45 cents a pound freight prepaid, compared to 50 cents a pound in the fall of 1952. Distribution of reed canary seed under the forage crop program reached 1,315 pounds in 1949 and after a slight increase in 1950, jumped to 2,479 pounds in 1951. Last year nearly 9,000 pounds of reed canary seed were distributed by the government seed plant in Moose Jaw.



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"I suffered a great deal from such pain in my legs, knees and other joints, that it was hard to do my work," writes Miss Thelma Johnson, Picton, Ont. "I was having so much trouble, I wondered if I would be able to continue at my job. Then I learned about T-R-C's. What a fortunate day that was, for I have had the very best sort of relief. I wouldn't want to be without T-R-C's in the house."

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Early stooking

MY first acquaintance with stooking threshing out west came in the fall of '29, a few miles out from Moose Jaw, at Pasqua. For those days it was quite a streamlined outfit — a 44-inch separator powered by a 50-75 H.P. Rumely, big as a steamer; a stockloader which was kept on the run loading 5 bundle-racks; 3 spike pitchers and 6 grain haulers — and always following around was the 15-30 McCormick with its train of cook car, bunk car and water tank.

For a beginner the work was hard, but we never worked overtime. I think perhaps the lady in the cook car had the toughest job: her day began at 3:30 a.m. One of us would roll out an hour later than that to feed the horses. Taking it in turn that way meant another half hour shut-eye for the rest of the teamsters. Breakfast at 5 o'clock was the kind that stayed with you: porridge and bacon and eggs, fruit and cake — and coffee by the gallon. Time for a smoke, then out to water and harness up.

Promptly at 6, the wheels would start turning, a team would draw up either side of the feeder, a spike pitcher climbing on to each load, and the first sheaves hit the cylinder. It was really something to see that "mill" devouring sheaves as fast as four men could tumble them on to the feeder. The third spike pitcher's job was to clean up around the machine and heaven help the teamster whose aim was poor.

Crops were short, the average not much over 10 bushels an acre, so every time we had a short break for lunch, which came at 9 a.m. and 4 p.m., the boss reset. This made us 4 sets a day, maybe 200 acres. I think our best day was around 2,500 bushels, though one oldtimer told me they had threshed out 5,000 in good crops.

Promptly at 7 p.m. the boss would yell — "Quitting time, boys!" and the nags would toss their heads and whinny in reply. Water tank and rack of oat sheaves were nearby: bunk car and cook car a little ways further. No miles to go home in the dark. In a few minutes our chores would be completed, our day's work done. Just wash off the grime and in to supper.

But the cook would be on the go for hours yet. Guess she earned her pay.

Tom Bird.

Foxford, Sask.

Regina Hurricane

IT was in June, 1912, when this tragedy occurred. I was working in Regina then. We noticed very black clouds rolling up. Suddenly a wind of hurricane proportions arose. Trees were uprooted. Glass windows were smashed, roofs taken off buildings, buildings upset, buildings carried away. The noise was deafening. When it was over, over 30 people were counted dead. Damage to property ran into millions. I escaped with but minor injury. A board struck me and bruised my left hand.

Fred Garsuk.

Box 235, Two Hills, Alta.

Large French Crop

FRANCE is producing a large grain crop this year, with production of wheat being placed at 302 million bushels by the United States department of agriculture. This is 2 per cent below last year but is the second largest postwar crop. The production of oats is expected to be around 233 million bushels and the barley outturn will be around 94 million. About 18 million bushels of rye should be produced.

Master Farm Homestead



The farmstead of the Emil Kvarnbergs of Buford, Alberta, Master Farm Family for 1953, is protected by spruce trees they began planting in 1931, and by natural shelterbelts. Mr. Kvarnberg and his son, Ernest, work the farm together — a quarter section which yields above average crops of oats, barley, flax and clover. Mr. and Mrs. Kvarnberg live in the new bungalow and Ernest and his family in the main house.



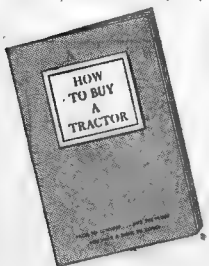
Here's how to buy a tractor

Just ask yourself: "Will this tractor do the most jobs for *me*, *more* of the time, without wasting power? Is it easy to operate, and will it go from one kind of a job to another, quickly and easily?"

To *answer* yourself, you've got to *see* the tractor do *your* jobs on your farm. And above all, you shouldn't let "habit" guide your choice.

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No other tractor gives you *all* the Ferguson System advantages: Traction and penetration without power-stealing weight, finger tip and automatic draft control, front-end stability, and an exclusive built-in hydraulic overload release that saves tractor and implement if you hit a hidden rock or stump.

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FERGUSON *Twenty-85*

What does your handwriting reveal?

Are you a natural-born salesman or would you make a better mechanic? Have you got hidden talent for art, cookery or stenography? Would you be interested in getting the verdict of an expert on the character your handwriting reveals?

The Farm and Ranch has arranged with Mr. David Meyer, the author of this new and regular feature of the Farm and Ranch, to analyze the handwriting of its readers. Here are the rules:

Write at least 12 lines with pen and ink on good paper. Do NOT — repeat — NOT use a ball-point pen or pencil. Send it, together with 25 cents in coin: —

DAVID MEYER.

7½ Jane St., New York City, New York, U.S.A.

Do not send stamps and always enclose a self-addressed envelope.

Hand writing can show budding athletic ability

By DAVID MEYER

THE response to a recent article on the attributes of a good secretary was so heavy, I decided to follow up with aptitudes in other fields of work.

A person who wants to make sports his life-work should be blessed, above all, with good

muscular co-ordination.

He should have a decided preference for activity rather than reflection.

He should not be encumbered with delicate nerves, temperamental ups-and-downs and too much imagination.

These qualities that make for

a good sportsman will also make for relatively undeveloped writing. However, the writing will indicate an imperturbable will and sheer pleasure in animal movement.

please position

The above specimen was written by a professional golfer. Note the firm strokes and the evenness of the writing. They reveal perfect muscular control.

Physical interests are disclosed by the emphasis on the lower zone (lower loops).

Note also the firm pressure and the medium size of the letters. These traits point to physical strength and steady, even energy. The writer is a marvelous specimen of patience, endurance, even temper.

He has the child-like joy of sheer physical movement and bodily sensation.

He could have been a ball-player, tennis-player, hockey-player, boxer. Chance made him a golfer. He is following in his dad's footsteps.

A good advertising copywriter should save some creative ability, a sense of a how-manship, tact.

The following specimens were submitted by applicants for the position of copywriter with an advertising agency. The choice was made on the basis of the analyses.

you may ①
Read enjoy ②

to work ③

Specimen number 1 is characterized by regularity, good spacing between words and lines, a leftward slant and a rounded style. These traits tell us that the writer has a firm will, objective judgment, mature reasoning ability, and a sociable disposition that will make her tactful in dealing with others.

The combination of leftward slant and roundness discloses a special sense of showmanship, that is, she gives the impression of a gentle, yielding nature while constantly bearing in mind just the effects she wishes to produce on others. Quite a bit of wordy calculation there.

However, her lack of creative ability is indicated by the leftward slant which tells us she lacks spontaneity. Neglect of the upper zone suggests lack of mental alertness and imagination. The letters are too close to the style taught at school, and this tells us that for all her reasoning ability, she lacks maturity, individuality, mental ripeness. This writer always looks backward for precedents and copy-book "wisdom". She would be a steady worker because of her firm will, but not original or effective.

The second specimen has an upright slant and blown-up lower loops. We know, then, that his reflective, reasoning nature is ever trying to hold sway over his strong emotional impulses. These impulses strongly indicate a flair for the dramatic and showmanship. But the question

RIBTOR SOLID ALUMINUM ROOFING AND SIDING

For All Buildings: New or Old



- LIFE-LONG SERVICE
- IMMEDIATE DELIVERY
- COSTS NO MORE
- NEVER REQUIRES PAINTING

Canada's No. 1 farm building material. ALROL is solid aluminum to give life-time service without maintenance. ALROL is unconditionally guaranteed—your assurance of a quality product.

.016 - 26-GAUGE RIBBED ALUMINUM SHEETS

For economy for use on solidly boarded surfaces, use directly on old shingled roofs, etc. Strong enough to withstand heavy storms, but light enough to be easy handling. All 26" wide.

.020 - 24-GAUGE RIBBED ALUMINUM SHEETS

Cheaper to use on new construction. Save on lumber, requires only half as much boarding on sheathing as 26 gauge sheets. Sheets are more rigid, 26% thicker. All 26" wide.

26 Gauge	Per Sheet	24 Gauge
Price	Sq. Ft.	Price
6 ft. \$1.90	13	6 ft. \$2.00
7 ft. 2.25	15	7 ft. 2.35
8 ft. 3.60	17-1/3	8 ft. 2.70
9 ft. 2.90	19-1/2	9 ft. 3.10
10 ft. 3.20	21-2/3	10 ft. 3.40

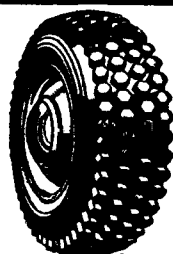
ALUMINUM ROOFING NAILS (With sealing lead washers)

Lb. \$1.45

WE PAY FREIGHT!

RIBTOR

607 - 2nd Street East, CALGARY, Alberta



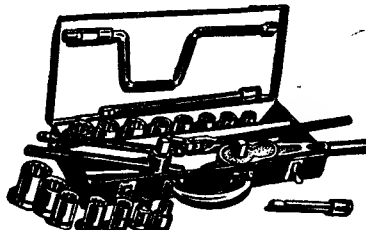
Price Slash - Overstock! TIRES

DO YOU USE THESE SIZES?
1st Grade — Guaranteed

	Tread	Regular Price	Special Price
600x16-6 ply truck Rayon Cord	Knobby	\$48.05	\$32.95
600x16-6 truck Rayon Cord	Commercial	\$43.65	29.95
750x16-8 ply truck Rayon Cord	Road Grip	\$83.10	58.50
500x20 6 ply Passenger	Plain	\$30.50	15.95
670x16-4 ply Passenger	Aircushion (replaces 600x16)	\$30.25	19.95
710x15-6 ply Passenger	Aircushion	\$42.25	31.95
700x15-6 ply Passenger	Plain	\$51.20	34.95

COMBINATION 3/8" and 4" DRIVE SOCKET SETS

18.95



Tools made of highest quality alloy steel — triple chromium plated. The finest in appearance, strength and toughness. Husky Brand, 15-piece. 3/8" Square Drive Set, 7 Sockets, 3/8", 7/16", 1/2", 9/16", 5/8", 11/16", 3/4"; Universal Joint, 3" extension, 6" extension, 11" extension; Speed handle, reversible ratchet, sliding handle and metal carrying case. 14 piece, 1/2" square Drive Set—11 sockets, 6" flex handle, cross bar and metal box. Combination Set of 29 pieces. Brand New and Guaranteed. Reg. value \$28.95. Special \$18.95



SALE OF FAMOUS DIENSTGLAS BINOCULARS

Complete with Genuine Leather Case

8x30 Dienstglas. Special wide-angle construction. Fully coated optics afford crystal clear view. These binoculars

come complete with a beautiful genuine leather carrying case, carrying strap and neck strap. This is a regular \$48.50 value going at OUR SPECIAL RIBTOR PRICE

33.95



"Well, Dear, it looks like the money you paid for the special cards was well spent."

arises whether he would confine his emotionalism to copy-writing or whether it would run away with him and interfere with his working relations with others in the office and the customers. He is somewhat intemperate, touchy, on edge.

There is imagination and creative ability in this writer, as indicated by the full and spontaneously-written capitals. Also ambition and much personal pride.

However, the matter of interpersonal relations raises a strong doubt against him.

The writer of specimen num-

ber 3 shows ability to concentrate in the small writing. The gentle oscillation in the size of the small letters points to imagination and sensitivity. The connected style of writing shows logical reasoning power and steady habits. The slant to the right and fast writing indicate facility for verbal expression and the handling of words generally. He is quick, lively, at ease with people. Mature intelligence is shown by the angular formations, and the good spacing indicates objectivity and clear-headedness. No personal quirks will interfere with his relations to others.

To sum up, this writer is naturally creative, a consistent worker, easy to get along with. This is the candidate who got the position.

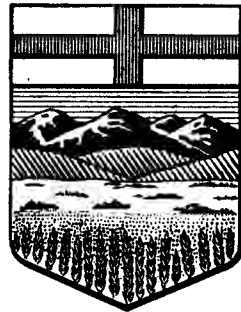
Expects Britain to buy wheat

R. T. Hon. C. D. Howe, minister of trade and commerce, expects that the United Kingdom will buy her usual amount of wheat from Canada this crop year. This statement was made when the minister was commenting on a report that the

British millers have already bought the bulk of their requirements for the year.

Mr. Howe indicated that sales would be on the international Wheat Agreement level which provides a ceiling of \$2.05 and a floor of \$1.55. The following table shows the amount of Canadian wheat and wheat flour purchased by the United Kingdom in the past five years:

	Bushels
1948-49	151,728,317
1947-48	160,707,275
1949-50	130,095,361
1950-51	102,492,721
1951-52	127,510,391
Total	672,634,065



GOVERNMENT OF THE PROVINCE OF ALBERTA

Announces the Fifth Annual

MASTER FARM FAMILY AWARD

for 1953 to the following

Howard Hymas Family
Rosebud

Frank Jackson Family
Keg River

Emil Kvarnberg Family
Buford

Ernest Belzil Family
St. Paul

L. B. Lohr Family
Erskine

The Master Farm Family Award is recognized by an award of \$1,000.00, an engraved plaque and a name plate for the farm entrance. The purpose of the Master Farm program is to find and honour those who have achieved notable progress in farming, home-making and citizenship, and who, by their example, are encouraging interest in farming as a way of life. The Department of Agriculture is indeed proud and gratified with the high standard of attainment among the farm citizens of Alberta as revealed by the Master Farm Family Program.

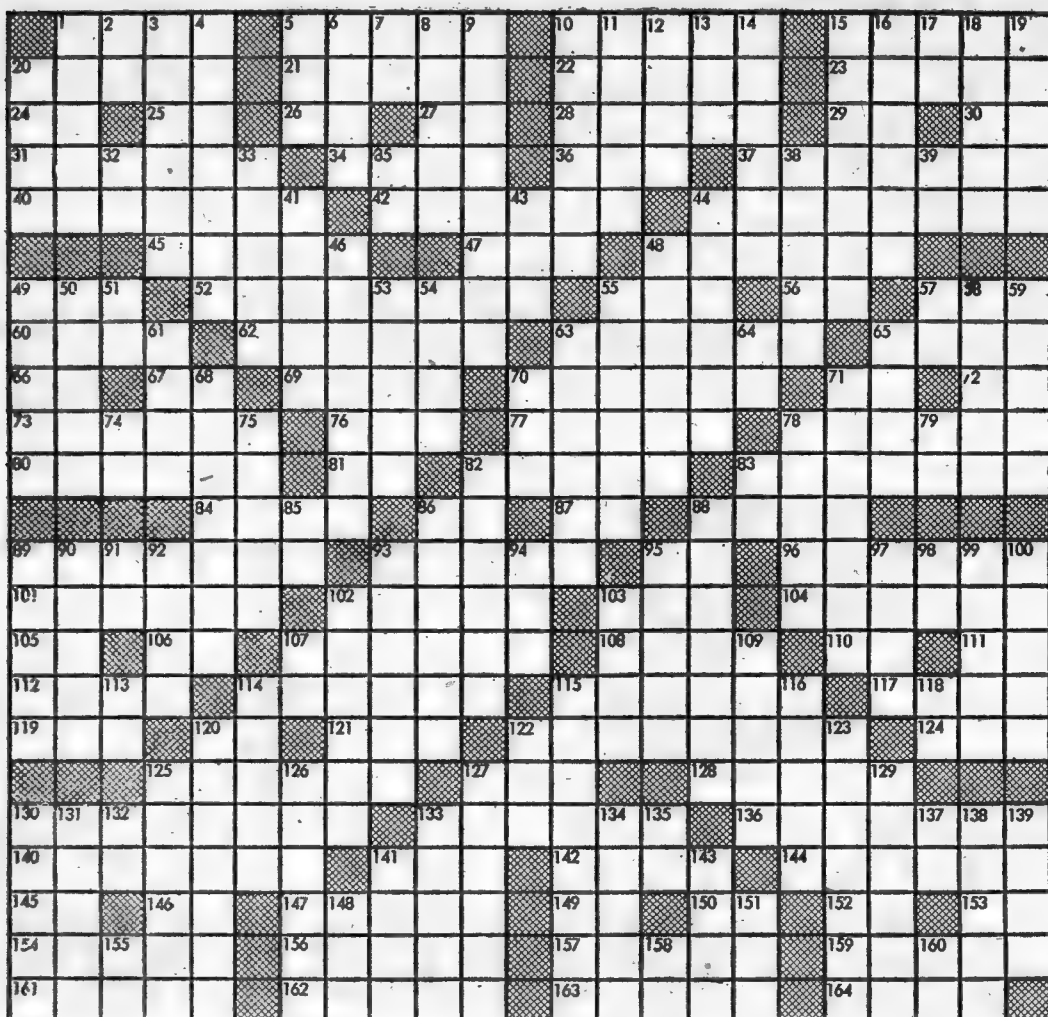
DEPARTMENT OF AGRICULTURE

GOVERNMENT OF THE PROVINCE OF ALBERTA

Hon. David Ure, Minister

O. S. Longman, Deputy Minister

OUR CROSSWORD PUZZLE



HORIZONTAL

- | | | |
|---|---|------------------------------------|
| 1 Game fish | 66 Musical note | 110 Depart |
| 5 Old violin | 67 Wireproof (abbr.) | 111 Article |
| 10 Quarrels | 69 Dwarf | 112 Measure (pl.) |
| 15 To calm | 70 Plaits | 114 One who plays certain game |
| 20 Hut | 71 River in Italy | 115 Halls |
| 21 Man's name | 72 Roman number | 117 The mat-grass |
| 22 Find fault | 73 To accompany | 119 Edible seed (abbr.) |
| 23 Inner court open to sky | 76 --- Fall, stone on which kings of Ireland were crowned | 120 State (abbr.) |
| 24 Bone | 77 Wild buffalo of India | 121 Norse goddess of healing |
| 25 Pronoun | 78 Former Spanish coin | 122 Kind of wine (pl.) |
| 26 Half an em | 80 Danish attendant on lord (pl.) | 124 Paid notices |
| 27 Earth goddess | 81 Engineering Corps (abbr.) | 125 Detain in port |
| 28 Rugged crest of mountain range | 82 Talks | 127 Pronoun |
| 29 Teutonic deity | 83 Grades | 128 Slumbered |
| 30 Symbol for tellurium | 84 Makes lace edging | 130 Metal urn for making tea (pl.) |
| 31 Harvested | 86 Symbol for cobalt | 133 Type of movie (pl.) |
| 34 To aid | 87 Canadian province (abbr.) | 136 Betrayal of one's country |
| 36 Thing in law | 88 Simpleton | 140 To imply as pre-existent |
| 37 Click beetles | 89 Field for achievement (pl.) | 141 To mimic |
| 40 Clings | 93 To push from below | 142 Parrots |
| 42 Odors | 95 Child for father | 144 Writer |
| 44 Reduces to a mean | 96 River of Asia | 145 Pacific Is. land screw pine |
| 45 Carouse | 101 Rules | 146 Part of Bible (abbr.) |
| 47 To apprehend | 102 Firearm | 147 Member of Hindu caste |
| 48 Skillful | 103 Hindu cymbals | 149 Preposition |
| 49 Interjection enjoining silence | 104 Take a nap | 150 Tribe in Naga Hills, India |
| 52 Share of surplus allocated to insurance policyholder | 105 Symbol for Iridium | 152 Size of shot |
| 55 The sun | 106 Kind of fish | 153 French for 'and' |
| 56 Man's nickname | 107 Endure | 154 Growing out |
| 57 Golf mound | 108 Performs | 156 To speak |
| 60 Astrigent compound | | 157 Make noise like horse |
| 62 Envoy | | 159 To lift |
| 63 Attract | | 161 Base for plaster (pl.) |
| 65 Man's nickname | | 162 Plants |
| | | 163 Visible vapor |
| | | 164 Heraldry grafted |

VERTICAL

- | | | |
|---|---|--|
| 1 Founded | 53 Pertaining to a certain European country | 99 Chamels of the Pyrenees |
| 2 Symbol for alabamine | 54 Feminine name | 100 Dispatches |
| 3 Smirk | 55 Cante | 102 Sovereigns |
| 4 Scoffed | 57 Kind of palm | 103 Seed of the vetch |
| 5 Female ruff | 58 Choice part | 107 Therefore |
| 6 Feminine name | 59 Masculine name | 109 Long-legged bird |
| 7 Bag (abbr.) | 61 Heavenly body | 113 Musical note |
| 8 Anxious | 63 Thorough-going | 114 Nurse shark (pl.) |
| 9 A strong white fabric | 64 Rupees (abbr.) | 115 Prickly fruit of a species of cucumber (pl.) |
| 10 Kind of beetle | 65 Foreman | 116 Fortune tellers |
| 11 Peels | 68 Make believe | 118 Cooled lava |
| 12 Class of vertebrates consisting of birds | 70 Exclamation of disgust | 120 Bids |
| 13 Inferior horse | 71 Resounding tolling | 122 Japanese measure |
| 14 Part of shirt | 74 Symbol for calcium | 123 An apparition |
| 15 Pierced with certain weapon | 75 Former Russian rulers | 125 Handsome American moth |
| 16 Incrustation on teeth | 78 Conspiracies | 126 Place of nether darkness |
| 17 Pronoun | 79 Plural ending | 127 Cutting implement |
| 18 Measure of capacity | 82 Lockup (slang) | 129 Scotch plaid |
| 19 Unstratified deposit of loam | 83 Company (abbr.) | 130 A speech (slang) |
| 20 Persian gazelle | 85 Tensile strength (abbr.) | 131 Place of combat |
| 32 Exclamation of triumph | 86 Chest for valuables | 132 Pronoun |
| 33 Satan | 88 Wavers | 133 Watched secretly |
| 35 Symbol for barium | 89 Fold edge of cartridge case inward | 134 Article of faith |
| 38 Dike | 90 Eagle's nest | 135 Continent (abbr.) |
| 39 For example (abbr.) | 91 Japanese measure | 137 Spanish for 'yes' |
| 41 But in two | 92 A shield | 138 Fat |
| 43 Rabid | 93 English variety of apple | 139 Upper tone of disjunct tetrachord |
| 44 Intimate | 94 Weight of India | 141 Poker stake |
| 46 Thin appendage of a foliage leaf (pl.) | 95 One who sets the pace | 143 Icelandic tale |
| 48 African mousebirds | 97 Gangster (slang) | 148 Consumed |
| 49 Upper bract in grasses | 98 Artificial language | 151 Unit of electrical resistance |
| 50 To gash | | 155 By |
| 51 Chinese measure | | 158 That is (abbr.) |
| | | 160 Italian (abbr.) |

SOLUTION NEXT MONTH

Country Diary

OCTOBER derives its name from the Latin "octum"—eight—but by adding January and February it became the tenth month. The scorpion is its sign, which in some mystic way associates the symbol of darkness with the sun's decline in power after the autumnal equinox in September. The Emperor Charlemagne named October "vintage month", which is still a good name, for its the season when the fruits of harvest are safely garnered in graneries, and tree fruits and vegetables are brought in and stored in cellars and basements.

The "fall of the leaf", that picturesque term for autumn is now approaching. It does not mean that we should mourn summer's passing and dwell on "melancholy days". True, the sad wind does give us warning of inevitable storms. But October has its own lovely little summer, a season of pure color, flaunting its gold, red, green and russet as if in defiance of winter. The date of Indian Summer cannot be found on the calendar, for it is one of Nature's own private seasons. It may come in mid or late October, or even be prolonged into November, but no calendar has ever encompassed it. To many it is the best of all seasons; it is Nature the artist at work on her most vivid canvas. The poplar [and what would the prairie be without this most versatile of trees?] shimmers in cloth of gold from topmost boughs to earth. Crimson rose hips shine and glint in the sun, the willows drop their pale leaves and fall asleep till their twisted branches swell again with early sap. So slight a thing as the circle of crisped leaves at the foot of a tree can form a carpet of Nature's own weave and color. The trees stand still against the faultless blue of the October sky, the varied tints of their foliage lit by the sun's shining, resembling the rich, stained, pointed ecclesiastical windows of heraldic glitter with intricate leaf-turned illumination. It is a last exultation of the glory of autumnal display.

The little creatures of the field know the authentic signs of what is coming. Badgers, dormice, gophers, weasels are all preparing to crawl into their winter quarters, sleepy and overfed from leavings of threshing. The farmer's tame, soft beasts will go into the barns when stormy winds blow, but the wildlings in their freedom will challenge winter on their own.

October is perhaps "the parting of the ways", but in saying farewell we might remember the words of John Donne, a too-seldom read Elizabethan poet: "No spring, nor summer beauty hath such grace

As I have seen in one autumnal face."

Let's Ask Aunt Sal...

BECAUSE I gave over so much space in the story of my meeting with the travelling delegates from A.C.W.W., I'm going to make the questions and answers very brief and to the point. If you think the wording sounds too snappy, just remember I'm trying to be businesslike... that's all.

Q.: Where can I get a good cook book of home-tested recipes? (At least eight of you asked this lately.)

A.: Three such books came to my desk this month. All are good and I highly recommend them all three:

(1) *Souvenir Cook Book*—Put out by Fort Whoop-Up Ladies' Club. Price 15 cents. Write to: Mrs. George Luco, Box 133, Lethbridge, Alberta.

(2) *Favorite Recipes*—Put out by ladies' of St. Andrew's Church, Lethbridge, Alberta. Price 65 cents. Write to Mrs. Jean Ringland, 1103 - 13th St. S., Lethbridge, Alta.

(3) *Coronation Cook Book*—Put out by ladies of St. Stephen's Presbyterian Church, Creston, B.C. Price \$1.00. Write to Mrs. A. O. Farstad, Creston, B.C.

Q.: I want a recipe for sandwich spread that one can prepare in jars for school lunch-box sandwiches. — (Four requests for this lately.)

Canned Sandwich Spread

A.: 1 qt. finely chopped sweet pickles, 3 red peppers, 3 green peppers, 1 cup vinegar. Cover chopped peppers with vinegar and cook 10 minutes. Drain. In double boiler prepare these: 3 tbsps. flour; $\frac{1}{8}$ tsp. cayenne pepper, 1 tsp. ground mustard, $\frac{3}{4}$ cup vinegar from pickles, 1

tsp. salt, 1 cup cream, 3 beaten eggs, 4 tbsps. sugar. Cook first 5 ingredients in double boiler until thickened. Then add cream, stirring constantly. Cook ten minutes then pour this over beaten eggs and return to boiler and cook 3 minutes more. Add pickles and peppers and let come to boil. Pour into sterilized jars and seal. Process in water bath 10 minutes.

Q.: Where is there a doll hospital in Western Canada where I can send two valuable old dolls to be restrung?

A.: The only address I have at present is this: Doll Hospital, 318 Granville St., Vancouver, B.C.

Q.: Have you the recipe for the suet pudding that has no sugar in it. It has suet, pepper and salt in it, but what proportions and instructions I know not.—(Mrs. N. G., Canoe, B.C.)

A.: I think this must be the one, although I have never tried it.

Spotted Dog Pudding

2 cups flour, 2 tps. baking powder, $\frac{1}{4}$ tsp. salt, $\frac{1}{8}$ tsp. pepper, 1 cup chopped suet, 1 cup milk (1 cup currants and $\frac{1}{2}$ cup raisins may be added). Mix and tie in well floured bag and cook in boiling water two hours.

Note: Because of lack of room I shall attend to more of your letters privately this month, and the rest will appear in next month's issue.

All readers are invited to send in their homemaking problems to Aunt Sal, in care of the Farm and Ranch Review, Calgary, Alta. If you wish a private reply enclose a stamped, self-addressed envelope. There is no charge for this service.

Give them their head!

By LOUISE PRICE BELL

IF there are youngsters in the home, then you probably have an embryo artist, dress-designer, chemist, or engineer. Whatever the interests, be sure and not only let the smallsters develop them, but encourage them in the development. Boys make big talk about creating an atom bomb of their own, and girls may tell you that they'll some day have more Oscars than famous Edith Head, but that's natural kid-talk and shouldn't be scoffed at, nor ridiculed.

You know that your daughter's interests are going to be much different from their brother's, and that there'll doubtless be a few arguments about the value of each. But these arguments are normal and to be expected, and nothing to worry anyone, least of all a parent.

If Beth wants to play with her paper dolls during all her spare time because she makes believe they are real live models and wants to dress them suitably, by all means let her do it. Since her ultimate aim is to be a dress designer, this childish

play is actually of value for through these inexpensive setups she can learn the right color combinations, the proper accessories to use with various types of costumes, and have real fun while she is learning.

If, on the other hand, Richie is fascinated by anything that suggests chemicals, start him in the right direction by letting him have a simple chemistry set and help him learn how to do the harmless things suggested. Better this procedure than to tell him it is far too dangerous until he is older for then he may try some experimenting on his own... and with dastardly results!

Children with one or more interests that are likely to lead into their adult vocation, avocation, or even a worthwhile hobby are pretty likely to be busy, happy ones; they never ask what they can do next, or waste time doing silly, useless things. Often, of course, their ideas about their life work change as they grow older but even if they do, their juvenile projects will have been worthwhile.

Make All Four of these thrilling oven treats with One Basic Dough!

1. Chelsea Twirls



2. Orange Whirls



3. Date Eight's



4. Jam Ring



Versatility begins at home — with Fast Dry Yeast!

One quick dough, thinly rolled, comes out four delectable dessert delights! Raised oh-h so tender n' light with amazing Fleischmann's Fast Rising Dry Yeast! When you bake at home, get festive results with Fleischmann's. Never fails. Keep a month's supply on hand.



Needs no refrigeration!

BASIC PINWHEEL DOUGH

Scald

1 $\frac{1}{2}$ cups milk
 $\frac{3}{4}$ cup granulated sugar
2 $\frac{1}{2}$ teaspoons salt
 $\frac{1}{4}$ cup shortening

Remove from heat and cool to lukewarm. In the meantime, measure into a large bowl

$\frac{3}{4}$ cup lukewarm water
1 tablespoon granulated sugar

and stir until sugar is dissolved. Sprinkle with contents of

3 envelopes Fleischmann's Fast Rising Dry Yeast

Let stand 10 minutes, THEN stir well.

Stir in lukewarm milk mixture and

3 well-beaten eggs

Stir in

4 $\frac{1}{2}$ cups once-sifted bread flour

and beat until smooth and elastic; work in

4 $\frac{1}{2}$ cups more (about) once-sifted bread flour

Turn out on lightly-floured board and

knead dough lightly until smooth and

elastic. Place in a greased bowl and

grease top of dough. Cover and set dough

in warm place, free from draught, and

let rise until doubled in bulk. Turn out

dough on lightly-floured board and knead

lightly until smooth. Divide into 4 equal

portions and finish as follows:

1. INDIVIDUAL CHELSEA TWIRLS

Cream $\frac{1}{4}$ cup butter or margarine and $\frac{1}{2}$ cup brown sugar; divide into 12 greased muffin pans; add pecans. Cream 2 tbsps. butter or margarine, 2 tps. cinnamon and $\frac{1}{2}$ cup brown sugar. Roll out one portion of dough 12 by 10 inches. Sprinkle with cinnamon mixture and $\frac{1}{4}$ cup raisins; beginning at long side, roll up loosely; cut into 12 slices. Place in pans. Grease tops. Cover and let rise until doubled. Bake at 350°, 15 to 18 mins.

2. ORANGE WHIRLS

Boil together for 3 mins., stirring, $\frac{1}{2}$ cup butter or margarine, 1 tbs. grated orange rind, $\frac{1}{2}$ cup orange juice and $\frac{1}{4}$ cup gran. sugar; cool. Spread half in greased 8-inch square pan. Roll out one portion of dough 16 by 10 inches; spread with rest of orange mixture; beginning at long side, roll up loosely; cut into 16 slices. Arrange in pan. Grease tops. Cover and let rise until doubled. Bake at 350°, about 30 mins.

3. DATE EIGHTS

Combine $\frac{3}{4}$ lb. cut-up dates, 1 cup water, $\frac{3}{4}$ cup gran. sugar and 1 tbs. butter or margarine; boil gently, stirring often, until thick; cool. Roll out one portion of dough into 12-inch square; spread half with half of filling and roll up to centre. Turn dough over; spread remainder with filling and roll up to centre. Cut into 12 slices. Place, well apart, on greased pan. Grease tops. Cover and let rise until doubled. Bake at 350°, 14 to 18 mins. Spread hot buns with icing.

4. JAM RING

Roll out one portion of dough 16 by 8 inches. Spread with $\frac{1}{2}$ cup thick jam and $\frac{1}{2}$ cup chopped nuts; beginning at long side, roll up loosely. Twist dough from end to end; form into ring on greased pan. Grease top. Cover and let rise until doubled. Bake at 350°, 25 to 30 mins. Spread hot ring with white icing; decorate top.

The summer days have gone and now,
We're facing a new Fall . . .
And tasks galore are facing us . . .
That come to one and all.

EACH month I vow that I'll write a little of this monthly chat day by day, but I never do. Instead I always leave it until the last day before the deadline date. Whether this is laziness or procrastination I don't like to say, but I like to think it is because I want to receive as many of your letters as I can before sitting myself down to the job of writing. For one never knows what will come to me in one of your letters. Chances are some important piece of information will turn up to make favorable fodder for my monthly chat to you fine friends.

This month, however, I decided I would give over the whole page to pass on the story of my meeting with 26 delegates to the A.C.W.W. (Associated Country Women of the World) who had just terminated their triennial conference at Toronto, and groups of them had decided to travel across Canada and see more of this vast land at close range.

The twenty-six of them that toured southern Alberta were scheduled to arrive at Taber, Alberta, at about 7 a.m. on the morning of September the first. That meant that those of us who were coming from Lethbridge to greet them had to get up at 5 o'clock. My husband, Oscar, thought that was a great joke but when I reminded him that he often got up that early to go hunting he tossed back this saucy reply . . . "Sure I'd get up that early to see a duck or goose . . . but not a bunch of 'old hens' . . . I pretended to be very insulted at his low brand

Aunt Sal Suggests . . .

of wit . . . but, of course, I passed on the would-be joke to the others later in the day and we chuckled over it repeatedly.

We motored the 32 miles from Lethbridge to Taber and arrived in time to see our friends from many lands step off the train. There wasn't the faintest signs of restraint on either side . . . it seemed more of a race to see who would speak to whom first . . . if you see what I mean. Everyone could express herself in very perfect fluent English with the exception of the little lady from Japan, but that offered little drawback for there are many Japanese-Canadians in Taber so we secured an interpreter for her.

We gathered at a nice restaurant where all was in readiness for our breakfast. Each of us Canadians paired off with a lady from another country and exchanged views, opinions and homey chit chat about each other's country. My partner was a delightful lady, Mrs. Linton from North Ireland, near Belfast. She had all the charm and wit that is so often credited to the Irish . . . and the traditional "bit of blarney" tossed in for good measure. I'm afraid that I was so busy answering her questions about our country that I didn't get much information about hers at all.

When she accidentally spilled some fruit juice on the tablecloth, she rubbed a piece of the cloth between her fingers and exclaimed, "It's not linen, is it . . ." and almost at once she was off on a near-sermon on how they in her land had such quantities of fine linens while we in Canada had such quantities of fine wheat. "Why can't we exchange it?" she asked with great spirit. She told me she had been asking this of many agricultural men across Canada, so I felt sure she had found someone more able to answer her queries on trade problems than I.

But one thing I did tell my Irish acquaintance was about our western magazine, *Farm and Ranch Review*. I told her of the small part I have tried to play for over 10 years in being the go-between among the rural ladies of Western Canada and I took along with me 26 back copies of our magazine. I left these in the care of Mrs. Sweet-Lady from Belfast and she promised to pass them on to her fellow travellers. (I found out later on in the day when we met again at Lethbridge to have our dinner at the Dominion Experimental Station that she had already done the distribution. And several women came up to me and with charming friendliness asked, "You're the lady they call Aunt Sal, aren't you?" And I just wish I could convey to you on paper the delightful accent some of them put on my name. And I'm not going to be

surprised if we hear from some of these ladies later on, are you?)

Before I leave the breakfast scene, I must tell you of the youngest member of the party who was actually a "Miss" in her twenties. She was traveling with her mother, Lady Wilson, from Kenya, Africa. The Wilsons have a large dairy farm in that district and because of lack of refrigeration they have to pasteurize all the milk each day before shipping it 300 miles. They likewise have some Arabian horses and the daughter, Dorothy, who sat right across the table from me asked me several questions about horses and asked me if any of us rode. I couldn't miss that chance to tell a tall tale, so I assured us that we had all ridden the 32 miles from Lethbridge that morning on horseback. But I didn't fool her one mite . . . she looked over my small, plump person and noticed my silk dress, ear rings and what not and frankly remarked: "You don't look in the costume for riding."

We had lots of fun with this young Dorothy later on when in gratifying her wish to ride a prairie pony we got her astride one of these mechanical horses that was in the restaurant lobby she experienced a real rough ride for 10 cents.

We parted from our newfound friends for a time as they boarded a Greyhound bus that was chartered for their service, and while they toured the Taber Sugar Factory, the beet fields, the Hutterite colony near Lethbridge, we raced on back home to gather up the food and get it assembled at the picnic grounds at the Experimental Farm just outside of the city.

Even the weather co-operated and we spent a very "appetizing" hour picnicking under the trees. The Women's Institute

branches in and around Lethbridge brought the wherewithal to make the meal. It seemed (by the remarks I overheard) that the fried chicken and the jellied salads made the greatest hit with our other-country guests. Several of them remarked on the variety and quantity of our foods. "How you do heap up your plates," exclaimed my Belfast acquaintance. But when I glanced sideways at her plate I was almost rude enough to comment: "You do very well yourself . . . when you get the chance."

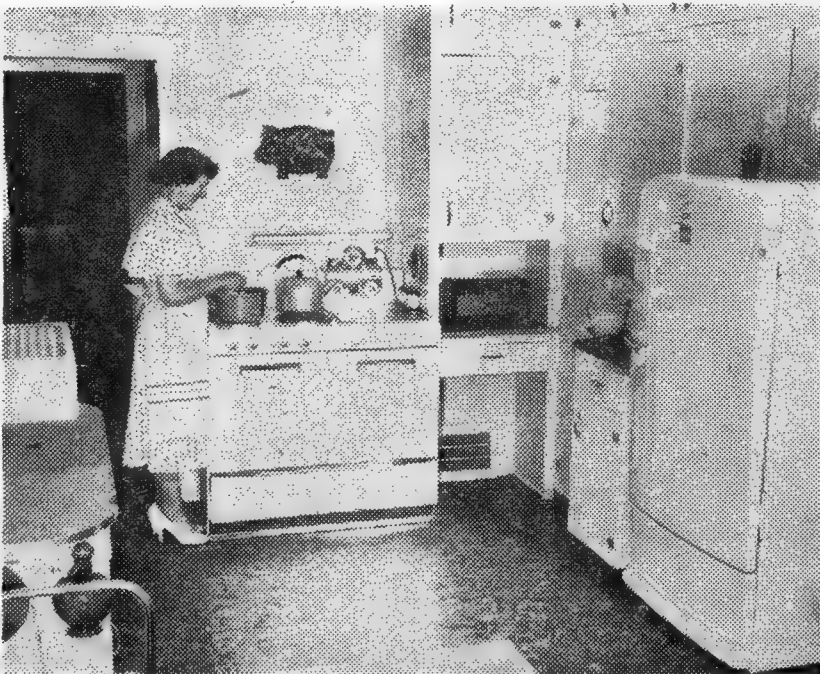
Our menu consisted of friend chicken, homemade buns, potato salad, jellied salads (both vegetable and fruit), ice cream and many kinds of cake and cookies. Wouldn't you say that such a meal should have established better feeling between us and those of other lands?

The time was all too short, but we tried our best to scurry round and chat to as many as we could. I had a lovely little chat with Mrs. B. Saeverud from Bergen, Norway, who writes homemaking news for papers in her land. When I told her I did that sort of thing and that my husband's parents and grandparents came from Norway she extended us a most cordial invitation to visit her. May, be some day I'll take her up on that invitation!

The bus driver had called "All aboard" many times before he could get his reluctant passengers to bid us goodbye and climb aboard for the next lap of their trip. As we gathered around them and lustily sang, "Old Lang Syne", I'm not ashamed to say there was a big lump in my throat, and it was not a piece of fried chicken either! It was the thoughts of parting from those we already counted "FRIENDS"!

Beef is one of our best sources of food iron and phosphorous, both essential minerals in nutrition.

Master Farm Kitchen




Mrs. Howard Hymas, of Rosebud, cooks in her modern electric kitchen.

MUSTARD
GIVES THIS QUICK

Chili Sauce

A PLEASING
"NIP"



1½ qts. canned tomatoes,
or 3 lbs. ripe tomatoes;
1½ cups chopped onions
1¼ cups chopped celery
1¼ cups chopped green peppers
4½ teaspoons salt
3 tablespoons sugar
½ teaspoon pepper
1 teaspoon Keen's Mustard
1 tablespoon Worcestershire Sauce
½ cup cider vinegar

If ripe tomatoes are used, peel and then chop. Combine with remaining ingredients, in order named, in a large kettle. Simmer, uncovered, 45 mins., or until quite thick. Pour into clean, hot jars and cover. Set on wire rack in a covered kettle, with boiling water to cover tops of jars 1". Boil 30 mins., from time boiling resumes. Makes 3 to 4 pts. K51H

Keen's
D.S.F.
MUSTARD

Midget cooks

BY LOUISE PRICE BELL



EVERY little girl begs to help mother with her cooking, and wise mothers not only let them help but permit them to cook by themselves, just as soon as possible. It is only a step from mud pies to baked custard, from carefully oiling mother's cookie sheet to actually stirring up the cookies that go there, and eager little girls can do a surprisingly good job at simple cooking.

With a well-stocked cupboard where all staples are carefully labeled so the child can find them with no trouble, cooking and baking will be an un-confused affair. If little Susan has learned earlier to measure cups, portions of a cup . . . if she has used measuring spoons with understanding and accuracy, she'll adore being left alone with a recipe that she knows and can read. Mothers should stay out of the kitchen, or at least out of

the little cooks' way when the important task is going on. They should be near enough to answer questions but keep out of the way if not needed. Fail-

ures sometimes occur but failures once in a while! Make should never be emphasized. Instead make light of them and help the little worker over the hump in the best way possible, explaining that everyone has your pride and joy!



Party Treat

TAFFY APPLES



2 cups sugar; 1/2 cup ROGERS' GOLDEN SYRUP; 1/4 cup water; red coloring; cinnamon flavoring.

Cook sugar, ROGERS' GOLDEN SYRUP and water to 300°F or hard crack stage. Remove from heat, set over warm water, add coloring and flavoring. Skewer 12 apples, plunge in hot syrup, remove quickly twisting to cover the apple and set to cool in buttered platter.

For Free Recipe Book, Write—
 The B.C. Sugar Refining Co. Ltd., P.O. Box 969, Vancouver, B.C.

Lack of "Characters" Mourned by Professor

ACCORDING to Dr. Sidney Smith, president of the University of Toronto, there are not enough "characters" in Canada.

He urged incoming students in an address at the fall opening of the university to develop "a critical spirit that can stand up against all the dreary platitudes and pallid insanities that assail us."

He said he was not praising eccentricity for its own sake — although Canada could easily support some more 'characters.'"

"Every day we are adjured through pictures, print and propaganda to pursue the same goals, admire the same people, enjoy the same pastimes, wear the same clothes and think the same thoughts. There are hundreds of clubs and societies—political, social, professional, industrial and even cultural—which tend to submerge the individual in the tide of conventional mediocrity."



Tea

as it should be!

Fine quality, choice flavor, full satisfying strength . . . Nabob lifts your spirits and satisfies as only a good tea can. Why not treat yourself to "tea as it should be?"



Which method is yours?

By LOUISE PRICE BELL

CHILDREN have to take medicine at times and the act should not be dramatized in any way but instead taken as a matter of routine. It can and will be, too, if Mothers start when the children are mere babies,

with the right attitude, administering the medication casually and talking about something pleasant the while. If small David pulls back and asks what you are going to give him, reply simply and go on with your talk

about the good marks he got on his report card, or the way he helped Daddy patching the roof. Modern scientists and drug houses have long ago changed their tactics regarding medicines and practically all of them taste really good . . . and none of them bad. So there is no reason at all for rebellion.

If you have started your child wrong and he does rebel, be

patient and calm instead of trying to force the issue. Explain to him that the medicine doesn't taste bad, that it will make him better, and that everyone takes medicine and only babies and people who don't think, "fuss" about it. Threats and cross words hinder rather than help, besides those aren't the tactics any parent wants to use.

This —



— Or This



DOES your sewing machine run hard, sound noisy or skip stitches? If it displays these symptoms, you'd better include it in your spring house-cleaning.

To clean a treadle machine, remove the needle, presser foot, bobbin, shuttle, bed slide, throat plate and face plate. With a small instrument, remove all

Sewing machine should be clean

lint and dust around the feed and shuttle mechanism. Brush kerosene over all exposed parts and squirt sewing machine oil generously into each oiling place and on each moving part.

Run the machine to work kerosene into the working parts. Brush all parts around the needle bar housing. Then tip the head of the machine back, remove all lint, especially around the feed dog and shuttle case. Clean with kerosene from the underside.

Remove thread wrapped around the large band wheel bearings. With brush and kerosene clean the bearings on the treadle, pitman rod and band wheel. Wipe dry all parts of the machine and allow several hours for kerosene to evaporate. Then reassemble and oil.

Ordinarily one drop of oil in

each oil hole is sufficient, but after a thorough cleaning, several drops are needed. Oil should be put into each hole and wherever two moving parts touch. Wipe away excess oil. Stitch on scraps of goods to take up excess oil and make adjustments.

Care of an electric machine must be systematic because it is not as easy to notice the common symptoms of a dirty machine, the NDAC clothing agent advises. Your instruction book will tell you what kind of lubrication your machine needs and how often. A general rule is a drop of oil in each oil hole after a full day's sewing.

If your machine fails to respond after cleaning, check your needle and tension. A needle too long, too short, bent, blunt or incorrectly placed in

the machine can cause trouble. Incorrect tension will cause poorly formed stitches.

Have you tried this —

BEFORE YOU CLOSE a partly used can of paint, take the brush and paint a thin line showing the level of paint in the can. Then a glance will tell you the color and quantity of paint left.

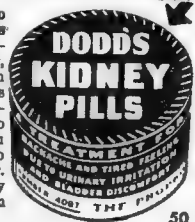
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To make ground beef cakes, mix a pound of ground beef with one minced onion, season with salt and pepper and shape into cakes. One may brown the cakes on both sides in hot lard and then fry slowly until done, about 15 minutes. When done, the cakes should be removed to a hot platter and served with gravy.

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The Dishpan Philosopher

ALTHOUGH my youth lies far behind I very clearly call to mind that folks who try to preach and prate with youth do not too highly rate. But, even so, I think today I'll "stick my neck out" as they say. And with the holidays just done I'll talk of studies now begun. Experience has taught me this — no scrap of learning comes amiss, for every little seed school sows through all one's life-time grows and grows. The knowledge gained from day to day at school, in both its work and play, adapts itself to life-long needs. Knowledge on knowledge surely breeds.

Yes every little bit of lore means something added to the store of treasure for these later days when life is cast in lonlier ways. And one more truth I would expound — knowledge is light to pack around.

Tips on Bleaching

BLEACHING has been a part of regular wash-day procedure ever since grandma hung her "white wash" in the sun to brighten it. Like washing machines, dryers, soaps, detergents and other weapons that do battle with dirt, it is a procedure that has been greatly improved by scientific research.

The newest development in the bleaching process is the powdered bleach that not only whitens white things but brightens fast colors. The chemical basis of the new powdered bleach is sodium perborate which breaks down into hydrogen peroxide when combined with water and has a gentle but effective action.

When used regularly, perborate bleaches eliminate the need for strong bleaching which is usually required after fabrics have been allowed to become dingy. Only a small amount of the powder is needed in the weekly wash and it is added right along with the soap. Directions given on the packages, now available in Canada, usually call for three-quarters of an ounce or about a tablespoonful to a normal 10-pound washing machine load. This amount can be increased for all-white washes.

Not only do the perborate bleaches work on colored prints by whitening the background and brightening fast colors, they can be safely used on fabrics containing some of the

newer synthetic fibres like nylon. In addition they leave the clothes with a fresh, clean smell—much like grandmother's sun-dried wash.

For those who dislike having to cope with heavy jugs or bottles, these lightweight packaged bleaches are the answer. They also eliminate the hazards of spotting as when liquid bleaches are spilled accidentally.

Some of the powdered bleaches contain water softeners as well as sodium perborate. And incidentally the perborate

is also the main ingredient of many dental powders designed to whiten teeth.

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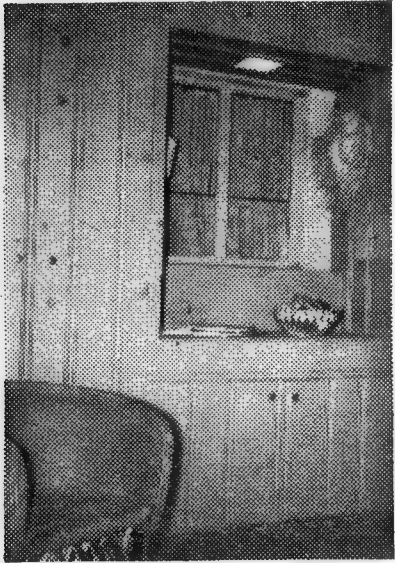
Point of View. In Milwaukee, on trial for drunken driving, Anton Schmalz, 62, admitted that he had been drinking Martinis "by the teacupful," but denied that he was drunk when arrested, explained that he had been forced to zigzag his car down the street "to dodge all the drunken drivers" coming at him from the opposite direction.

Laundry camouflage

By LOUISE PRICE BELL

RECENTLY we moved into an old house in which there was no place where I could do my washing except in a room in back of the kitchen that the children wanted as a play—or recreation-room. I hated to deprive them of that, because they like to have their friends in, so my husband thought up an idea. And it is so good—such a good way to hide and camouflage my simple little laundry set-up—that it's worth passing on.

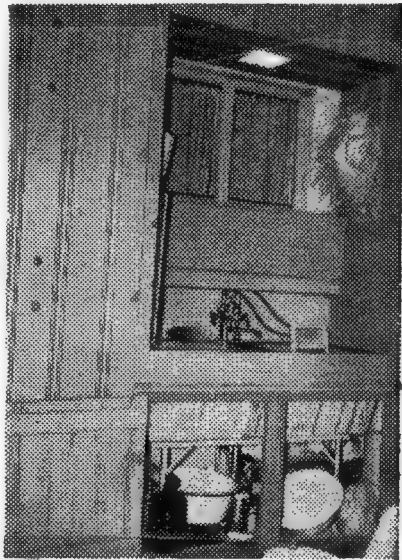
You can see from the picture



Cupboards line wall in the room off kitchen except under window where there seems to be a shelf or counter handy for fruit, books, etc.

(Fig. 1) that under the kitchen window there seems to be a counter, handy for magazines, fruit for the children, etc. This is between ceiling-to-floor cupboards. Sometimes the youngsters use it as a little "buffet", for apples, popcorn and "cokes" and it is very handy.

But come Monday morning and the inevitable washday and I clear the counter (which lifts up easily and hooks to the wall on each side, so is out of the way) and there are my laundry tubs, faucets, etc. (Fig. 2). The cupboard underneath holds my washday needs—soap powders, bluing, etc., and there is a door just at the right through which



Until washday comes around, when top lifts up, tubs and water are ready for use and washing items are stored below.

I take about ten steps to the clothesline. When through, I close the center section up, replace the items, and no one ever would have any idea what practical things are hidden beneath!

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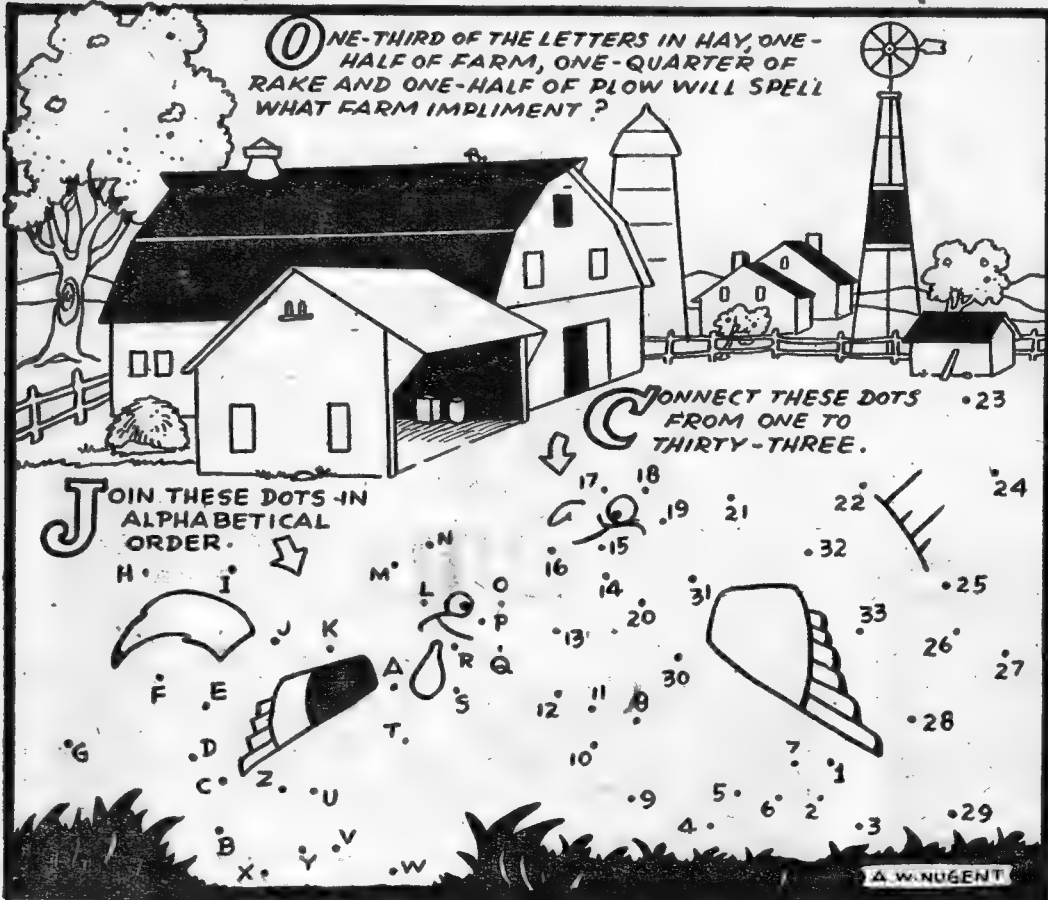
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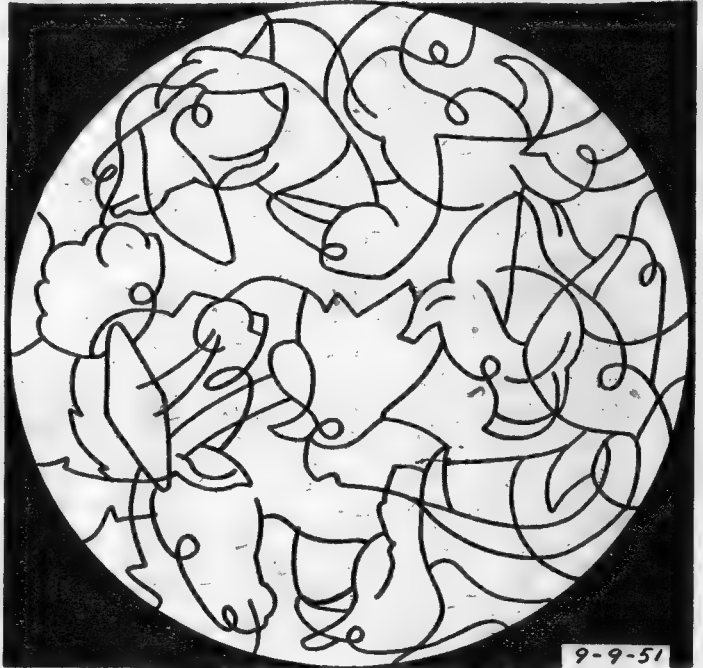


1/3 OF HAY, 1/2 OF FARM, 1/4 OF RAKE AND 1/2 OF PLOW WILL SPELL HARROW.

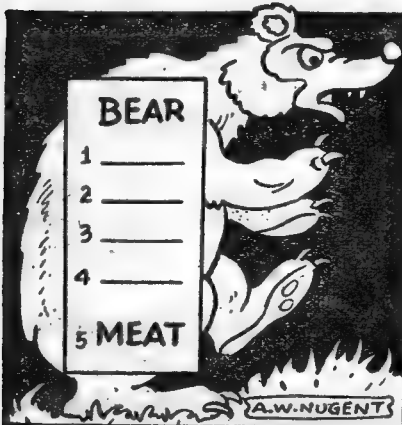
AYE, AYE, SIR!

BY READING THE SENTENCE BELOW, ONLY ONCE, SEE IF YOU CAN COUNT THE CORRECT NUMBER OF "J'S" USED. CHECK THEM MORE CAREFULLY LATER TO SEE IF YOU WON THIS SIMPLE TEST.

THE INITIAL IDENTIFIES THIS INSTITUTION AND IT'S A FINE ILLUMINATION FOR HIS INITIATION.



YOU'RE "IT"! WE'RE NOT GOING TO HELP YOU FIND THE ELEVEN FARM ANIMALS HIDING HERE. HAVE FUN!



CHANGE THE WORD
BEAR TO **MEAT**
IN FIVE STEPS.
SUBSTITUTE
ONE LETTER TO
CREATE A NEW
WORD IN MAKING
EACH STEP.
TWO OF THE IN-
BETWEEN WORDS
ARE VEGETABLES.

SOLUTION: BEAR, BEAN, BEEN, BEET, MEET, MEAT.

REARRANGE EACH GIVEN ROW OF LETTERS, READING ACROSS TO SPELL FIVE FIVE-LETTER WORDS THAT WILL READ THE SAME ACROSS AS DOWN, IN THESE SQUARES.

S	T	A	T	E
A	R	T	C	O
N	O	T	E	S
C	O	I	N	T
C	T	R	E	E



1, TASTE; 2, ACTOR; 3, STONE; 4, TONIC; 5, ERECT WILL READ ACROSS AND DOWN.



THE FATHER, THE MOTHER, FIVE DAUGHTERS AND ONE SON TOTAL EIGHT.

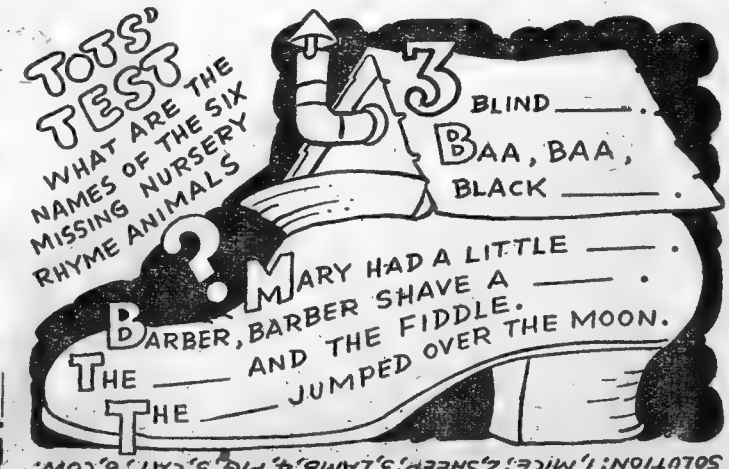


BECAUSE IT IS SPELLED WITH MORE E'S (EASE).

IN STORY LAND



1, FROGGY; 2, THE GOOSE.



SOLUTION: 1, MICE; 2, SHEEP; 3, LAMB; 4, PIG; 5, CAT; 6, COW.

Nature study as enjoyed from a pig-trough boat

By KERRY WOOD

OUR fleet consisted of two canoes and two canvas-covered duck-boats, all home-made by Fred, Pat and myself. Our navigable water was the Red Deer River, which varies from the wild turbulence of a mountain stream to the placid pools of a prairie river. Our method of cruising was deliciously lazy; we'd get a friendly truck-driver to transport our craft and ourselves to a bridge upstream from our homes and then spend a day, a week-end, or even a whole week's holiday drifting down with the current.

"Hey, gang! Slow down while I catch this fish!"

So we'd swerve into a backwater, with fly rods or the shorter casting tackle being used while Fred, Pat, Johnny, Sid, or Tom finished playing the pike, wall-eye, or gold-eye that had volunteered itself as a frying pan candidate. Hearing us talk, you'd think that fishing was the most important purpose of the outing, but it was really incidental. The main idea was to enjoy ourselves.

And we did. Even on the stormy day when the river was in high flood and we embarked on an unknown stretch of stream out in the wilder foothills. The current was extremely swift, the river was split into many confusing channels, while the muddy water had foaming outbreaks above submerged snags and rocks as well as a flotilla of dead trees to complicate our passage. The lead canoe hit a rock and turned over. My craft was next; when we sought to help our friend we suddenly found ourselves gulping icy water and battling the buffeting currents of an undertow. Only Fred came through unscathed, and we blessed the fact that the grub was in his canoe. We lost ten, utensils, hats and raincoats, fishing tackle and cameras. But we still had a marvelous time.

"Remember how we slept under the canoes, how we drank tea out of a bully beef tin that gave it an oily flavour?"

Nature Afloat

Boating is a wonderful way to study nature. The river carries you to a new scene at every bend, while the musical throb of it muffles the small noises of your progress so that the craft easily gets close to deer and moose, to a family of Canada geese or to a Blue Heron statuesque in the shallows. We paddled alongside swimming beavers, a mother Merganser with 13 youngsters squawked in great alarm as she found herself between two of our canoes, while sometimes the Peregrines would put on a falconry display by stooping on a frantic victim right over our heads.

We went ashore anytime there was something interesting to see. The lovely Calypso flowers of the foothill belt would stop our cruise, while a flowering cactus down in the prairies was always worth a look. We examined large roots of petrified wood, admired the rich colors of native granites, putting a shapely piece of crystal in our pockets to take home and show the family. We climbed the sandstone cliffs to get a closer look at the scores and hundreds of dome-shaped nests of the Cliff Swallows, cleverly built of mud pellets and always placed where the rain would not dissolve the soluble building material to cause nest and fledglings to tumble down to the jagged rocks below.

Fenced In

Once we heard a rasping cough from a steer standing amid the trees on shore. There was something about the sound that made me investigate, whereupon I found that the animal had somehow got its head wedged between two huge balm trees and was securely held there as if by the steel stanchions of a modern stall.

I rushed back to the river and hailed my friends in the other crafts. There were four of us that day, and we held a consultation over that poor beast. It had been trapped for several days: it could no longer make a mooing sound, while the rubbery muzzle was cracked and festered and fly-bitten on that hot August day. The hollows around the hip bones were deeply pathetic, telling of the steer's need for water.

"How're we going to get it out of this mess?"

Our only ax was a small hatchet, an ineffective tool against those 24-inch balms. We took hold of the animal's horns and tried to chivvy it past the restraining trunks, without success. But we noted that the trunks were wider apart a foot above the animal's head level: it must have been rearing when it slipped between the trees and became trapped.

So we hunted up a strong pole, placed it under the chest of the beast, then ranged ourselves two on a side and heaved with all our strength. Finally we lifted it high enough to let the strugglin animal wrench its head clear, whereupon the steer galloped to the river and gratefully plunged its dry muzzle into the water.

The memories are many of the good times and strange sights enjoyed from those gliding canoes and bobbing duck-boats. Right now I'm without a craft of any kind, though I'm studying plans of ribs and keel and planking boards and wincing with alarm over the price of

enough canvas to cover a 14-footer. But the river is calling again. There is also a lovely spring-fed slough a half mile away where the grebes have built their floating nests, where the red-winged blackbirds have slung their hammocks on swaying tules, and where I could hide amid the rushes and watch the duck broods and muskrats and hear the staccato song of Marsh Wrens.

Some folks fear the temperamental tippiness of canoes, while a duck-boat rides low in the water and spray comes aboard when you dodge through the wilder rapids. However, you

can always use a rowboat or a flat-bottomed punt. Once when the depression was depressing, Bruce and I pooled our total cash resources and bought \$2 worth of lumber and built a 3 by 12 foot box, square-ended and entirely graceless as a boat. Yet we enjoyed a three-day cruise down the river in it, then a farmer salvaged the box-boat at the end of our holiday. Today, it is still serving that farmer as a pig-trough.

Now, there's an idea! Just a minute while I go phone the lumber company and find out how much I'll have to spend to make another pig-trough boat!

THE POOL'S 30th BIRTHDAY



This is a notable month in the annals of Alberta's farm co-operative movement for it was just 30 years ago that Alberta farmers launched the Alberta Wheat Pool. This great experiment in co-operative marketing is part of western Canada's Wheat Pool movement which is recognized as one of the greatest efforts of self-help ever made by a single group of people.

Over the years, the Alberta Wheat Pool has built a most creditable record of achievement on behalf of Alberta's grain producers.

It operates on a cost basis a string of elevators — now grown to include 486 country houses and 2 giant terminals—with a capacity of over 41½ millions bushels.

The Alberta Wheat Pool has been able to distribute patronage dividends to the value of over \$11¼ million.

It has consistently set the standard of elevator practice in the province, giving unsurpassed service, and has brought many improvements on which no cash value can be placed.

All this has been accomplished on an investment by producers of \$8½ million, all of which has since been repaid at 100 cents on the dollar.

Organizers of the Alberta Wheat Pool laid down policies which insured that ownership and control of the organization would remain solely in the hands of farm people. This provides the assurance that in succeeding years the operation of the Alberta Wheat Pool will, as in the past, continue in the best interests of Alberta's grain producers.



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A few days ago I went out to the field to sweep and clean out a bin which had a bit of wheat in it. In one corner lay a large chunk of old waterproofed paper so I swept around it, then gave it a jerk to throw it out when I really started something. Under the paper was a huge mouse's nest, and in pulling the paper I rolled the nest over. It was literally packed full of bumble bees who were very angry at having their home molested. Before I could get out of there, one whizzed into my coat collar and stung me on the back of my neck. I reached in later with a long stick and scattered the nest. It contained a large, dead mouse, curled into a tight ball, and it evidently had been stung to death and its home taken over by the bees.

E. Hawey.
Strasbourg, Sask.

Last winter our men had a baled green feed stack a hundred feet long. As they were hauling bales for the stock, every once in a while they would come to a little space which looked like a gopher or some small animal's nest that had from 12 to 16 dead mice in it, all the way to the other end of the stack. Finally, when they brought in the last load at the end of March, under the two last bales, out jumped a big weasel, which had the last of dead mice in a row. The boys made up their mind not to catch another weasel. It's the best cat on the farm.

Doris Chetter.
Box 219, Irma, Alta.

Master Farm Kitchen



Mrs. Kvarnberg has every convenience in her cosy bungalow. The narrow cupboard behind her opens to reveal revolving shelves that utilize every inch of space. The Kvarnbergs have lived on this farm near Buford for almost 40 years. Their progress is well deserving of the title "Master Farm Family".

tered 138° since here in 41 years.

Emil Lorentson.
Bindloss, Alta.

One hot summer afternoon when I was walking home from school with my smaller sister, I saw some nice big leaves. We each picked some and began swishing them around our faces to cool them off from the hot sun.

About two mornings after that when I got up I had red itchy spots all over me. When I went down stairs to have my breakfast my mother told me that it was poison ivy.

Wilma Erven.
R.R. 3, Box 19 1/2,
Minnedosa, Man.

One evening we were watching our little lambs playing. They would run up on top of the pile of gravel then jump over one another. Then they would come around on the one side where it was slanted and run up again. They looked just like they were playing leap frog. We watched them for a long time playing.

Alma Fern Kessler.
Pangman, Sask.

One day I saw a barn swallow building a nest at one end of our barn. The next day I went to look at it again and noticed more nests had been started. So I sat down and watched the birds at their work. They'd fly to a little puddle close by for mud and back to their nest. In less time than a week there were eleven nests started. Each were about six inches to one foot apart. Now the nests are all finished and they are laying their eggs. These birds seem to be a big happy family. Soon there will be a bigger family yet.

Tony Senger.
St. Cyr Lake, Sask.

One day last spring, one of our horses, named Pride, had a colt which was born dead. Another of our horses, named Lady, also had a colt which lived. About two months later, Lady disappeared. Pride, who lost her colt, adopted Lady's colt. The colt nurses from Pride who doesn't seem to mind and the colt doesn't seem to miss its mother.

Sidney Unrou.
Pierceland, Sask.

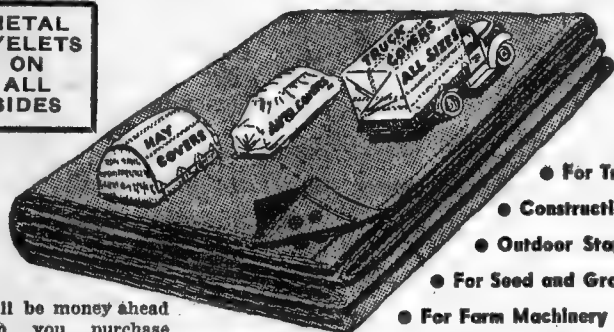
One day when I went out to play in my playhouse among the trees, I saw that some little wrens had built a nest in the middle shelf of my doll's cupboard. I guess they thought there were too many dishes and things on that shelf because they built another nest on top of the cupboard. I couldn't see in the nest as it was too close to the ceiling, but I put my hand in carefully and felt several little eggs. Later I felt some little birds. I went away for a holiday and when I came back they had all left the nest.

Linda Meyer.
Box 158,
Gilbert Plains, Man.

RIBTOR Value Event

HEAVY WATERPROOF TARPAULINS

METAL EYELETS ON ALL SIDES

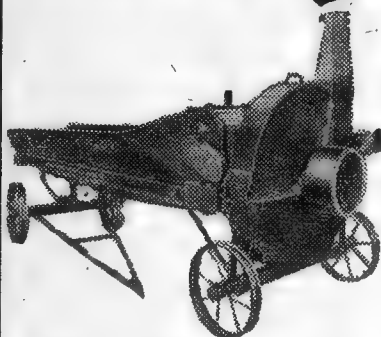


- For Truck Covers
- Construction Work
- Outdoor Storage
- For Seed and Grain

You'll be money ahead when you purchase one of these heavy waterproof Duck Tarpaulins... Absolutely lowest prices in Alberta.

Size	Price	Size	Price
5'x7'	\$ 5.95	12'x16'	31.95
7'x9'	10.65	10'x18'	29.50
8'x10'	13.50	12'x18'	35.95
10'x12'	19.75	14'x18'	41.95
10'x14'	23.50	14'x20'	46.95
10'x16'	27.50	16'x20'	53.50
12'x14'	27.95	20'x20'	67.50

SEE THE OX COMPLETE LINE



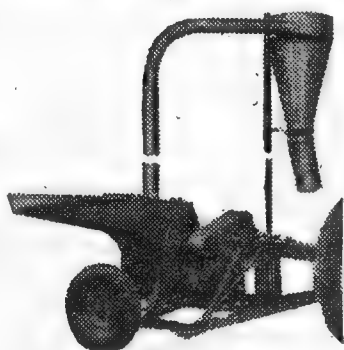
THE 446 ENSILAGE CUTTER

The best roughage cutter at the lowest price — all exclusive features — cuts hay, fills bunks, light power required, backed by iron-clad guarantee.

INCLUDES:

- 4-18 1/2" Flywheel Knives.
- 1 extra set of Knives.
- 1 Tractor Hitch.
- Knife Grinder.

Price, F.O.B. Calgary **\$685**
Only



THE 13A HAMMER MILL, ON A P.T.O. DRIVE

Big capacity — the only company with a 13-inch and 18-inch mill, priced for a farmer — available with travelling feed table and cutter head — heavy duty, precision built throughout. P.T.O. drive fits most Hammer Mills economical — sold only with transports, increase capacity up to 50% — 6 V-Belt, multiple drive.

OK HAMMER MILLS

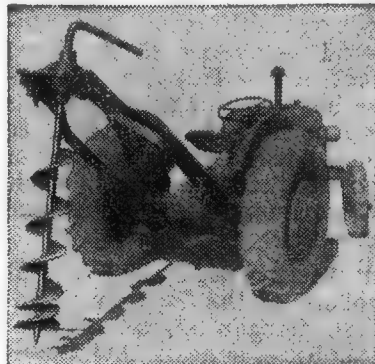
Model 10A—10" Hammer Mill. Price F.O.B. Calgary, only (Less P.T.O. Drive)	\$243.00
Model 13A—13" Hammer Mill. Price F.O.B. Calgary (Less P.T.O. Drive)	\$275.00
Model 18A—18" Hammer Mill. Price F.O.B. Calgary (Less P.T.O. Drive)	\$415.00
Model 113C—Combination 13" Hammer Mill & Cutterhead Mill with travelling feed table, automatic governor, grain hopper, 3-knife cutting head. Price F.O.B. Calgary	\$645.00
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• All Hammer Mills and Combination Mills come equipped with 2 screens, auger, pulley and dust collector, 3 sections of pipe (included in above prices).	

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No. 650 Power-Take-Off Attachment

Fits any mill — includes 2 - 6V groove pulleys — 6 matched V-belts, roller bearing wheels for 16" tires — Drop Centre Axle — less tires.

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POST-HOLE DIGGER

Price Only **\$169.00**

Fits all types of tractors and digs 6" to 9" post holes — up to 48" deep — 40 to 60 per hour.

Equipped with (1) Heat treated removable bits, (2) Oil sealed, mechanite gears, (3) Universal joint.

Fully Automatic models for FORD-FERGUSON Tractors, Allis-Chalmers, Case, John Deere, etc. Lowest Price of its kind.

Universal Farm Welders

Guaranteed for 90 days against mechanical defect or faulty workmanship. Farmers, you can now do your own welding and at small initial cost. Portable can be operated off your tractor. Requires 10 H.P. or more. Self cooling generators. Dial-type rheostats. Built-in reactors. R.P.M. 2,200 - 2,600. MODEL 250 - Rated 250 amp. overload. Handles 1/16 to 3/16 rod very easily.

Price only **\$145.00**
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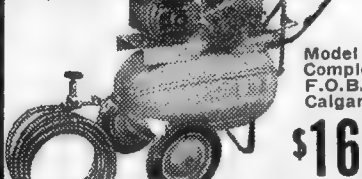
This model welder comes complete with 1 head shield with protective lens, 1 electrode holder with 10 ft. cable; 1 ground clamp and terminal with 10 ft. cable, 10 lbs. assorted welding rods; 1 valuable welding guide.



Write for complete information on these units.

AIR-O-MATIC AUTOMATIC PORTABLE AIR COMPRESSOR

- INFLATES TIRES!
- SPRAYS
- GREASES



Model ACW Complete, F.O.B. Calgary

\$163.50

Model AC (less wheels)

\$152.50

Completely Automatic. 100-lb. pressure. Ten-gallon air storage capacity. For tire inflation, spraying, greasing, etc., on farms, garages, workshops.

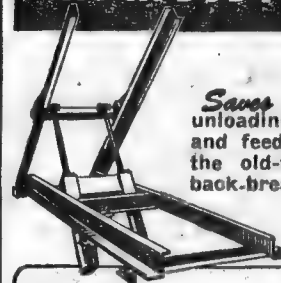
Complete as illustrated with 1/3 H.P. heavy-duty motor. (Also with gasoline engine if desired.) The finest low-priced air compressor built!



WEATHERCAP provides year 'round protection from rain, snow, dirt and insects. Scientifically designed for all engines with vertical exhaust pipes such as tractors, combines, etc. Opens and closes instantly by means of engine exhaust.

When ordering give make and model of tractor or engine **2.55**

NEW 7-TON CAPACITY TRUCK BODY HOIST



Saves costly hand-unloading of crops and feed rather than the old-fashioned — back-breaking way.

Consider these facts:

- 1/4 lower price saves you \$80 to \$100 in hoist cost alone!
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Less than \$1 per day

Less than \$1.00 per day is all it takes to mechanize "101" tedious unloading jobs with the new 7-ton capacity Jumbo Twin hydraulic hoist. Fits any 1 - 1 1/2 to 2-ton farm trucks up to 161" W.B. Quickly installed in your own shop with ordinary tools.

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Low Agricultural Price, Only **\$430**
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For 1/2, 3/4, and 1-TON TRUCKS



NATIONAL DUMP-O-MATIC HOIST

Converts your pick-up into a "rush order" dump truck for delivering grain, feed, sand and supplies. Saves using costly hand-unloading or expensive dump units for small lot deliveries. Improved twin hydraulic hoist dumps 3-ton loads in seconds. Low 1" to 2" mounting height simplifies loading by hand, gives excellent "road-ability".

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Get Quick Relief from CHRONIC BRONCHITIS

"Ever since birth, I was subject to attacks of Chronic Bronchitis," writes Mr. Roy Jarvis, 1026 Dovercourt Rd., Toronto. "I coughed violently and wheezed a great deal. Then I learned about RAZ-MAH—and now I'm happy to say I've found relief."

You, too, can get quick relief from that dry, hacking or phlegmy bronchial cough. Take Templeton's RAZ-MAH—the remedy specially made to relieve Chronic Bronchitis, Asthma and Hay Fever. Enjoy your work, enjoy your rest—start taking RAZ-MAH today.

65c, \$1.35—at druggists. R-52

Breeders' Notes

Beef and pork products compete for markets

PORK and beef have always vied with one another for the consumer's favor at the retail counter. Over the long run several of the most popular forms of both meats are considered as almost staple items in the diet. However experience has shown that in periods when pork is cheap relative to beef, domestic disappearance of pork products advances, while beef consumption declines and vice versa.

A recent study by G. E. Woollam of the Economics Division, Canada Department of Agriculture, suggests that Canadians, like Americans, normally show a little higher consumer preference for beef over pork. But it was found that when beef prices increase relative to pork, there is a corresponding reverse shift in the consumption ratio of the two meats. For example, when the wholesale price of beef is 50 per cent higher than the wholesale price of pork, beef consumption declines to about 31 per cent below pork. When wholesale prices of beef and pork are on a par, consumption of beef is about 4 per cent higher than pork. Similarly if beef is 20 per cent cheaper than pork, consumption is about 30 per cent greater.

From 1948 to 1951 beef prices in Canada advanced relative to pork, giving pork considerable price advantage at the retail counter. In recent months, however, the results of the advance in pork prices and the decline in beef prices has been showing up in the consumption trends of the two major meats. Pork consumption, while still at a healthy level, has tended to slip back slightly while beef buying has advanced markedly. Estimated Effects of Price Changes

on Relative Consumption of Beef and Pork*	
Wholesale Price of Beef as % of Price of Pork	Beef Consumption as % of Pork
150	69
142	72
135	76
129	80
122	86
116	90
110	95
105	99
100	104
95	109
90	115
85	124
81	129
77	136
73	143
69	150

*From bulletin "The Influence of Prices on the Relative Consumption of Beef and Pork" by G. E. Woollam.

Calf gains on cereal hay

DURING the past winter daily consumption and daily weight records were kept of four steer calves fed a mixture of oat barley and wheat hay. The calves were fed twice and watered once daily. The feed was harvested in the late dough stage; it was cut into 1-inch sections with a forage crop harvester and blown into a stack. The calves weighed from 425 to 485 pounds when placed on feed and were weighed daily at 8.00 a.m. thereafter.

Despite the regularity of feeding, watering, and weighing, daily weights varied considerably. For no apparent reason the calves might lose or gain as much as 10 to 25 pounds overnight. In general, all animals gained or lost together.

Consumption was approximately 14 pounds per day for the first 65 days, and the rate of gain was 1.1 pounds per day. After 65 days the feed consumption increased overnight to 18 pounds per day, and during the following 70-day period, the gain per animal was 1.85 pounds per day. All animals responded similarly.

This change occurred when a new portion of the stack was opened. No difference in nutritive content of the feed could be established by sampling different parts of the stack. All samples had approximately 10 per cent protein content and 48 to 53 per cent digestibility, but it was apparent that the second feed had a higher palatability than the first. Thus the small increase of four pounds of feed daily increased gains by three-quarters of a pound, and indicated the need for a palatable feed if satisfactory calf gains are to be achieved.

During the 135 days there was less than 5 per cent wastage of the cut feed. This was that portion which was removed from the mangers before the next feed was offered.

Thus, it appears that cereal hay harvested in the late dough stage and fed in a cut form, will produce good gains on calves with little wastage. When these animals were slaughtered, they provided excellent quality meat and had a 56 per cent cold weight dressing percentage.

Meditations at twilight

By A. L. MARKS

ARE you unhappy? If so, why don't you do something about it? Maybe you are sick, lonely, poor, frustrated, misunderstood, or otherwise upset and feel utterly helpless to do anything about it.

But are you helpless? Can't you still share? "But," you say, "what in the world have I got to share? Nothing. Nothing but my happiness." If you say that, you are wrong. You have yourself.

Even if you had nothing to share but the details that caused your unhappiness, you will get help from sharing them, because you are not then carrying all your troubles alone. And you are cheered by the sympathy and understanding of your friend. But you have done more. You have given your friend an opportunity to share himself or herself with you, and thus have added to his or her happiness.

Happiness, you know, is like the Kingdom of Heaven. It is within you; and as Dr. Henry Drummond says: "There is no happiness in having or in getting, but only in giving."

You also recall what the Bible says: "A man's life does not consist in the abundance of his possessions."

Because the Bible refers to Jesus as "A man of sorrows and acquainted with grief" we are inclined to think of Him in that way. But is that correct?

Why did He agonize over Jerusalem if it was not because the ones He loved there were set in refusing the gift of Himself and the purposes of His good mission to them? For He had nothing of possessions or earthly goods to give them. Even the birds had more. They had nests and homes of their own.

Haven't you ever called on some invalid or shut-in, or otherwise handicapped person you felt needed cheering up and come away cheered and happier for your visit? Have you ever taken a Christmas hamper to some poverty-stricken home and noted that joy can actually shine out of human faces?

One doesn't need good health, or money, or fame, or honors, or what the world calls success to be happy, or to be able to give happiness to others.

Sharing, or the will to share the best of yourself with others will bring happiness to you and to the one you share yourself with, for everything worth while, including life itself, is sweeter, when shared.



"That banker was sure a hard loser."

"CATERPILLAR" OWNERS point the way to PAYLOAD FARMING!

Here are the firm opinions of experienced men whose livelihood depends on their knowledge of the land — and the machines they use on it!

1. Mr. George Archibald, R.R. No. 3, Lacombe, Alberta.

"We owned one of the earliest models of the 'CAT' D2 Tractor and liked it so well for our farm work we decided to buy one of the newer models. We have used our new 'Caterpillar' Diesel D2 Tractor for every farming operation in real heavy muskeg land, and even on the heaviest work we found we always had plenty of power and traction for the job. Our fuel consumption has never been over one and one-half gallons per hour on our heaviest work of breaking muskeg. We have had no expense for repairs whatsoever. We are very pleased with our new 'Caterpillar' D2 and the excellent service it has given us. There was approximately 100 acres of muskeg bottom on our farm which we never could have broken with any other kind of tractor power. This land when in production will more than pay the initial cost of our 'Caterpillar' Diesel D2. The wide gauge with the 20" shoes gave us ample power for this special type of work."

2. Mr. W. D. Bell, Caroline, Alberta.

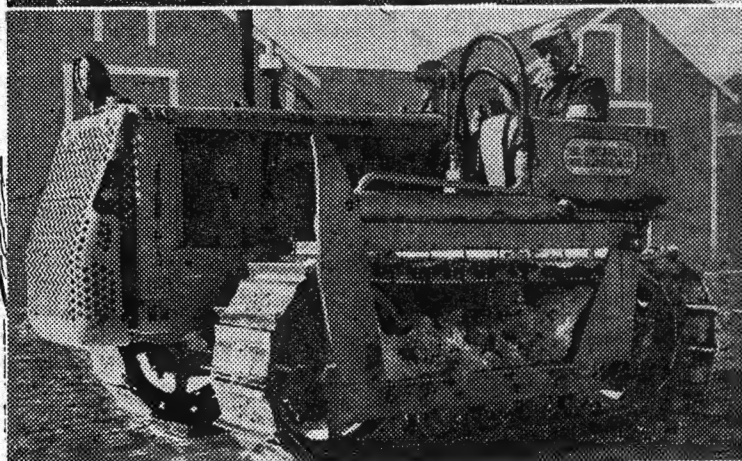
"I purchased my 'Caterpillar' Diesel D2 Tractor in November, 1952, and have been hauling logs continuously since that time. I am well pleased with the service it has given me and I also find it very economical to operate. I find it has sufficient power to do all the jobs we run up against and that we can get into and out of our cuts with no trouble whatsoever. We are hauling about two-thirds of our own weight on each trip. The D2 is earning approximately \$10.00 per meter hour on this logging haul. My fuel, oil and operator's expense run approximately \$2.00 per meter hour. I would especially like to mention that my relations with my 'Caterpillar' distributors have been very pleasing to me and that their Service leaves nothing to be desired. I am very pleased with my equipment in every way."

3. Mr. A. Stopson, Box 72, Eckville, Alberta.

"I first started farming with a steel-wheel tractor and while I had plenty of power I was always short of traction on my hilly farm. We changed the wheels on this first tractor and put on rubber tires in the hope that it would increase our traction but such was not the case. When we finally purchased our 'Caterpillar' Diesel D2 Tractor we found out for the first time just what real traction was. In fact, the machines which we could not pull with our previous tractor are now on the small side for our D2. Now that we have a real chance to try it out on our hilly conditions we would not trade it for any other make. Our D2 has plenty of power to handle any of our machines anywhere on the farm, under any conditions. Most important still — we can get our work done on time."

4. Mr. William Olson, R.R. No. 3, Red Deer, Alberta.

"I am farming a half-section of very hilly, wet land and have been using my 'Caterpillar' Diesel D2 Tractor for breaking. Much of our land could not have been put into production with a wheel-type tractor, but we can certainly get our work done with the D2. We have plenty of power and traction to haul our implements anywhere on the farm and we find the D2 very economical to operate. We also use our tractor on a large ensilage cutter for cutting feed and find we have plenty of power on the belt to run this big machine at full capacity. I would very strongly recommend a 'Caterpillar' Diesel D2 to any one who needs positive traction, plus low cost power on their farm."



There's a "CATERPILLAR" Diesel Tractor for every farm power need. Ask your "CATERPILLAR" distributor to show you the 32-h.p. D2 . . . the 43-h.p. D4 . . . the power-packed 66-h.p. D6 . . . the 81-h.p. D7 and the mighty 130-h.p. D8. All are built to "CATERPILLAR'S" uncompromising standards . . . all are built to do a better job for you!

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HURRY, FOLKS, HURRY!

IN THIS BRAIN-TEASER FUN-PUZZLE CONTEST

For Helping Us Build This Urgently Needed Hospital



GET INTO THIS EXCITING NATION-WIDE CONTEST IN WHICH RESIDENTS OF CANADA ARE NOW ELIGIBLE TO ENTER. This NEW puzzle game is fast becoming the most popular contest ever presented to puzzle fans anywhere. Here's an honest-to-goodness puzzle, "made to order" for contestants who enjoy competing in a genuine "battle of wits." First Prize cannot be less than \$2,000 and may be as high as \$12,000. Give money worries a "Knockout Blow" once and for all by winning a major award in this big contest!

Here is a puzzle problem that's really EASY. It's educational...it's exciting...and it can be highly profitable. No 25-word essays to write, no weird pictures to identify, no weary searching for words in big dictionaries. Everything required to solve the puzzle is right here on this page. All you need is a little patience and perseverance.

**A \$2 DONATION
CAN WIN \$2,000**
WITHOUT FURTHER REMITTANCE
AT ANY TIME

RESIDENTS OF CANADA ARE ELIGIBLE
TO ENTER AND WIN ANY PRIZE IN
THIS FASCINATING FUN-PUZZLE GAME.

HELP SEATTLE PREPARE FOR ATOMIC BOMBS

Seattle, Queen City of the Pacific, situated only 6 hours flying time by Intercontinental Bombers from Siberia, would be a prime target in the event of global conflict. Her 700,000 people would suffer thousands of casualties from the first shattering blow. To be prepared for such a catastrophe, the Trustees of the Hospital Association have undertaken the vital task of providing this important area with a new and urgently needed Hospital Center—non-profit and non-sectarian, to serve all the people in Peace or War. That's why sincere Canadians and Americans everywhere are invited to enter this Big Cash Prize Contest and help the citizens of Seattle, by your contributions, meet their greatest challenge.

CONTEST RULES

1. The contest is open to any adult residing in the United States, Canada, Alaska, Hawaii or Puerto Rico who enters the "EUREKA" puzzle with a donation of \$2.00 or more. Northwest Memorial Hospital Employees (and families) may not enter. One prize only to any contestant or to members of the same household.
2. If ties occur in this puzzle, then all those tied are required to work on additional puzzle or puzzles, known as a Tiebreaker. ONLY THOSE CONTESTANTS WHO ARE TIED WILL BE ELIGIBLE to proceed to the Tiebreaker puzzle, which will be a word-frame puzzle similar in style to the "EUREKA" Initial puzzle. Consecutive puzzles (not to exceed three additional puzzles) will be employed until there are no more ties. The contestant with the highest total in the last puzzle will be awarded the First Prize; second highest, Second Prize, etc., until all 250 prizes are paid. If ties occur in the third Tiebreaker, duplicate prizes will be awarded. Final results and photo-stats of the Top Winner's solution will be mailed contestants.
3. If there are ties in this puzzle or any Tiebreaker puzzle, all lower prizes will be reserved until those tying have been provided for. Then the remaining prizes (if any) will be awarded, in order, to those ranging next highest in the puzzle immediately preceding, and so on until all the prizes have been awarded.
4. Contestants may submit substitute answers anytime before November 30, 1953, provided a donation of \$2.00 is enclosed. All money previously remitted will be transferred and credited to contestant's best puzzle score.

CAN YOU SOLVE THIS?

HERE'S HOW TO SOLVE THE PUZZLE

1. In the puzzle diagram, the object is to select 22 words (in addition to "EUREKA") from the Master List, to fill all the interlocking word sections as in an ordinary crossword puzzle. Starting with either "U" or "K" in "EUREKA", choose words whose total letter values, when added together, will produce the largest or greatest GRAND TOTAL. Thus, it is easy to see that the word "BURY" could be used in the 4-letter vertical section to connect with the "U" in "EUREKA".
2. Use one word only in each of the 22 word sections and one letter to each blank square. All words to be selected from the Master Word List. You may leave blank, one or more letter squares at the beginning or end of words or both.
3. No word may be used more than once. Pen, pencil or typewriter may be used. Spell from top to bottom in vertical words and from left to right in horizontal words. The word "EUREKA" must appear in the position shown.
4. Each letter is given a definite point value (see letter-chart). The letter values of "EUREKA" must also be included when computing your Grand Total. Horizontal line or path totals MUST be shown in the space provided in the long ladder-like column at the right-hand side of the chart.
5. The Grand Total, being the total of the 16 horizontal line totals, MUST be added up and shown at the bottom of the long column marked "GRAND TOTAL".
6. All letters in your chart that interlock two words are given 3 times their regular value. EXAMPLE: The letters "U" and "K" in "EUREKA" are given triple (3 times) value because two other words will be joined or interlocked to "EUREKA" by these two letters.

EXTRA
PUZZLE
CHARTS
SENT
FREE
UPON
REQUEST

YOU CAN WIN \$12,000⁰⁰ GRAND AWARD

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FIRST	\$2,000	\$3,000	\$7,000	\$12,000
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THIRD	700	1,000	1,400	2,000
FOURTH	600	750	1,200	1,400
FIFTH	500	650	900	1,000

6th to 10th \$200 each (Total \$1,000) 51st to 150th \$ 20 each (Total \$2,400)
11th to 30th \$ 80 each (Total \$1,200) 151st to 250th \$ 10 each (Total \$1,000)

You may remit by Canadian or American currency, money order, or your own personal cheque will be accepted. Prizes will be paid to Canadians in either Canadian or American funds at winners' option.

MASTER WORD LIST

Here's Everything You Need to Win

ABANA	CANBO	GIALO	LUSK	PITEA
ABBOTT	CEBU	HAAN	MACIEL	RAUT
AGADES	CLAY	HESE	MIAMI	REED
AJUY	COVELO	JAFFE	MOSSEL	RENGO
AKIN		JALUD	MUKHA	RENNER
AKUTAN	DAKOTA	JALUIT	NAGREB	RHYL
ALMA	DEER	JIHUN	NARO	
AMUKTA	DHAR	KALI	NEELY	SEAL
ANJU	DISON	KALK	NEENAH	SUDA
ANJUI	DORVAL	KAMEN	NEVA	TEME
APISON	DROBAK	KENNET	NEWTON	TROY
ATHENS	EAGLE	KHAF		TRURO
	ENDERS	KHAO	OBOLD	UBAY
	ENON	KUPA	OITA	VREDE
BALA	ERON	KWOKA	OKEMAH	WADI
BELEM	FAYAL	LAHR	OMOLON	WISHEK
BOYD	FRIO	LAVARK	OSLO	WOLFE
BURY	GAETA	LOAS	PAIA	ZOAR

LETTER VALUES

A-5	N-6
B-8	O-6
C-6	P-7
D-7	Q-8
E-5	R-4
F-8	S-6
G-5	T-8
H-9	U-4
I-5	V-9
J-8	W-4
K-6	X-9
L-9	Y-9
M-6	Z-9

"EUREKA" KEY-WORD PUZZLE

GRAND TOTAL

Mail Puzzle With Coupon Today

I have shown, above, my grand total to the "EUREKA" puzzle. I also enclose my donation of \$_____ for the Northwest Memorial Building Program. It is understood if I am tied for high score I will be eligible to take part in the Tiebreaker.

NAME _____

ADDRESS OR R. F. D. _____

POST OFFICE _____ PROV. _____

Deadline Date for Mailing Entries is **Nov. 30, 1953**

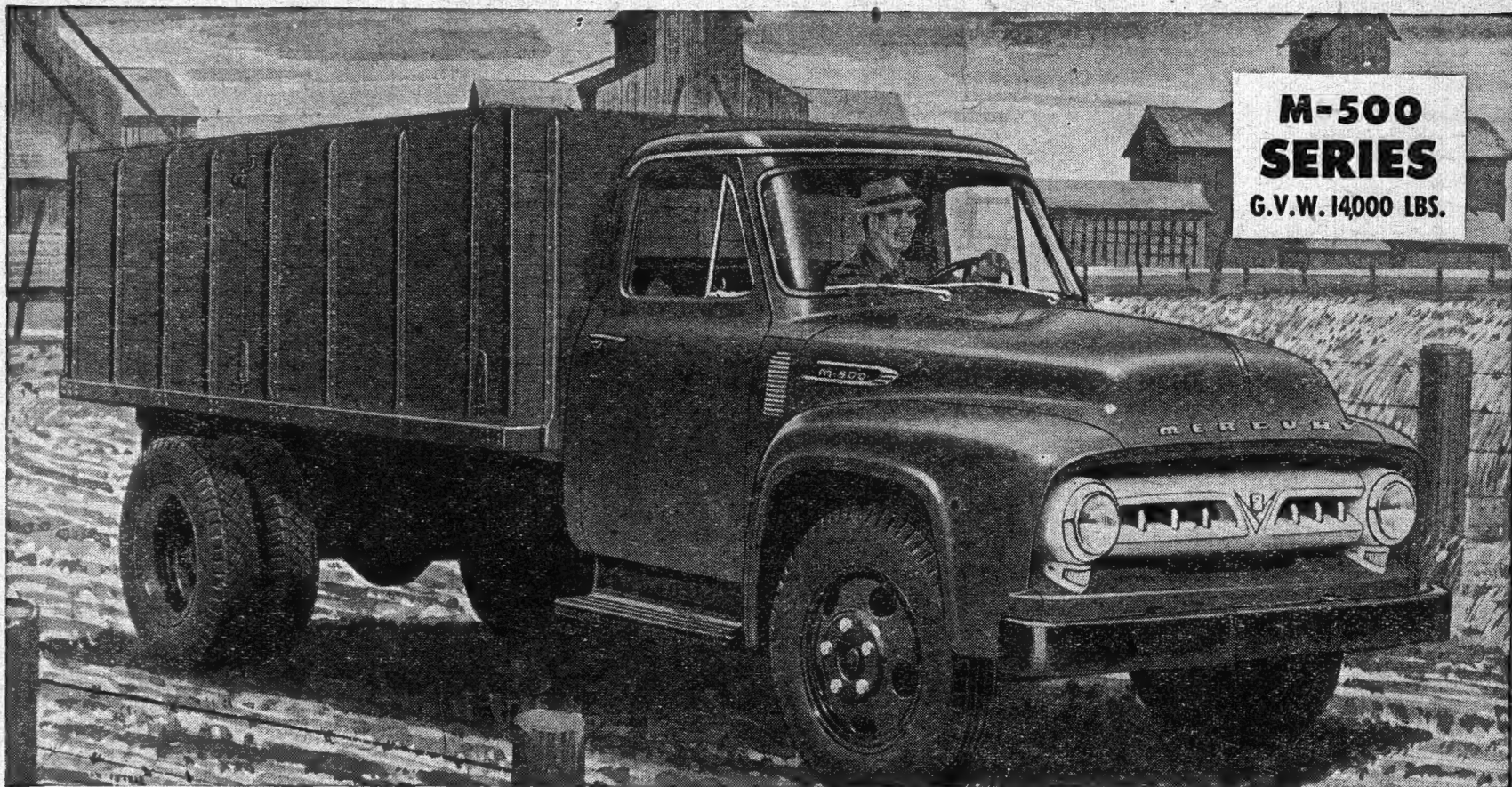
Mail to: **DR. REUBEN E. NELSON, Hospital President**
209 Mutual Life Building, Seattle 4, Wash.



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MERCUY TRUCKS

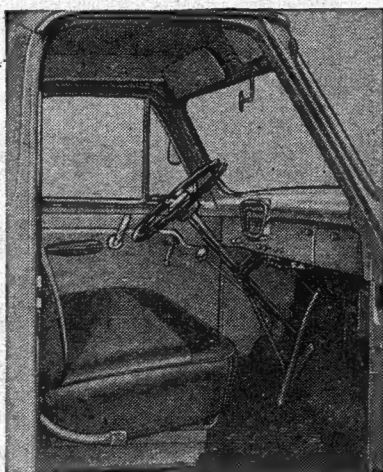
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G.V.W. 14,000 LBS.

PASSENGER CAR COMFORT CUSHIONS THE MILES

Standard and Custom Cabs are "built-around-the-driver"—offer new comfort and new safety, new relaxation after "tough" farm jobs. New "three-man" seats offer easy chair comfort. Non-sag seat springs are built to last. Adjustable seat cushion and separate adjustable back make driving easier. New cab suspension—Level Action Links eliminate torsional twists, prolong cab life and cushion the bumps mile after mile. New curved one-piece windshield, bigger side windows plus 4-ft. rear window assure see-all-around visibility. Every "Driver-Engineered" Cab feature is designed to help the farm-driver do more work, easier and have more "free" time.



EXTRA ECONOMY
EXTRA STAMINA
EXTRA POWER

TO SAVE MONEY
ON EVERY FARM LOAD

EXTRA STAMINA FOR EVERY FARM HAULING NEED

Mercury Trucks are popular favourites for every low-cost farm hauling need. For instance—the famous "big load speed boy" illustrated above—the Series M-500 Chassis and Cab with Grain Box body. It's especially suitable for the Western farmer's hauling, because it's heavy-duty-built with extra strength and stamina to move really big loads for less. Choice of 3 wheelbases permits mounting just the right body for your work. Gross combination weight of 24,000 lbs. and 7.50-20 8-ply dual tires—big power reserves in Mercury's 120 Hp. V-8 Truck Engine—rugged Gyro-Grip Clutch—and extra sturdy Deep-Channel Frame—they all add up to extra ability, dependability and durability. New 4-Speed Synchro-Silent Transmission eliminates "double-clutching", makes "down shifting" easy, safe.

Ask your Mercury Truck Dealer for all the "specs" on the M-500—also on the M-100 Pickup, M-250 Express and M-350 Express or Stake . . . farm hauling favourites in the greatest line of Mercury Trucks ever built.

SEE YOUR MERCURY TRUCK DEALER



MOVE IT WITH MERCURY TRUCKS FOR LESS!

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